

# MANUFACTURERS' RECORD.

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## Manufacturers' Record.

RICHARD H. EDMONDS, President.  
THOMAS P. GRASTY, Vice-President.

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### COPY FOR ADVERTISEMENTS.

Advertising copy (changes or new advertisements) should reach us Saturday Morning to insure insertion in the issue of the following week.

For the first issue in the month we should receive copy by Friday Morning of the week preceding.

52 Broadway, New York, April 2, 1901.  
Manufacturers' Record, Baltimore, Md.:

Dear Sirs—It may please you to know that I am already in receipt of inquiries for Jackson Drill catalogues from parties residing in Mexico and England, who state their attention was called to the drill by advertisement appearing in the Manufacturers' Record. Very truly yours,

H. D. CRIPPEN,  
Sole Licensee and Manufacturer  
the Jackson Hand-Power Rock Drill.

Mr. W. C. Cousins of Ferrum, Va., in renewing his subscription to the Manufacturers' Record, writes:

I feel that I am making a good investment. The Manufacturers' Record deserves the support of every man in the South, because, when we come to think of it, there is scarcely a man, woman or child in the South that is not in some way directly or indirectly benefited by it.

The New York World has been running a series of editorials on "The Steel Colossus," referring, of course, to the United States Steel Corporation, but the character of the articles may be judged from the fact that in the fourth one the pig-iron production of Pennsylvania is given as 636,935 tons for 1900, and on this is based the statement "the course of empire in iron and steel, as in other things, has moved westward, and the State of Ohio leads the Union in pig-iron, her production last year being 2,470,911 tons." As Pennsylvania produced 6,300,000 tons in 1900, or nearly one-half of the total output of the country, the value of such misinformation as the World puts forth can be appreciated.

Referring to the purchase by the Pennsylvania Steel Co. of the Spanish-American Iron Co. of Santiago the New York Journal of Commerce says:

The rush on the part of the great iron and steel companies to secure ore properties may be compared with the "earth-hunger" displayed by European nations in the last half-century. Before the United States Steel Corporation was formed this policy of getting control of raw material was well under way. The new company has continued it with an apparent indifference to price so long as the property could be secured. The

same policy is indicated in the case of the Pennsylvania Steel Co. It will be very strange if all this rush for ore lands does not stimulate search for new properties. It will be entirely in order to learn that great ore mines have been discovered in new localities.

The Manufacturers' Record thinks it is entirely probable that this prediction will prove correct, and that many discoveries of great ore properties will be made in the Southern States and elsewhere. The world seems to be hungry for iron and steel, and the basis must be iron ore.

### Science in Industry.

Completed census figures will afford an opportunity for an interesting study of the acceleration which has been given during the past ten years to the addition to the total wealth of the country through the utilization of what were until comparatively recently regarded as the wastes of manufacturing and agriculture. This phase of industry is one of the most fascinating developments of American life, especially as its end is not yet.

The men who forty years and more ago were experimenting with cottonseed as a source of oil were not able to impress upon the mass of cotton-growers the fact that millions of dollars were annually wasted, or to give wide currency to a belief that science would give the seed such value that even the by-products, so-called, of the cotton plant, the seed and the stalk, might assume an importance rivalling the dominance of the lint. The pioneers in wholesale slaughtering of animals for food gave hardly a thought to the offal of the animals, except to look upon it as a nuisance or as an element of discord between them and municipal authorities. It required many years of experience and experiment for an Armour to reach a point where he could express regret, almost seriously, that he could not turn the dying breath of a hog into a commercial asset. The discovery of easily-workable gold in California practically suspended gold-mining in the South for many years. The earlier iron-workers piled up as slag around their furnaces great masses of stuff which in after years, with the invention of new processes, would be found rich in ore values. Lumber was cut with no hint of the time when rags would be so scarce or so costly that most of the paper of the world would be made of wood-pulp, and that even that might have to be reinforced with other substances.

So the story runs for coal and oil and other products, for new methods of handling cotton, for the substitution of steel for wood in construction of railroad cars and immense bridges and other structures in a century which closed with man in possession of the earth's mineral and agricultural resources, or having an option upon them, and making all speed to chain to his purposes the forces of the water and the air. It was largely a century of waste due to a plenitude of riches and a carelessness for the future. But dur-

ing its last ten years the foundations were laid, through the investigations of science, for economy in production, making the most of all material, and for economy in handling the product for market. The saving of human labor by machinery, diverting great numbers of workmen into new fields of energy, has been followed by a saving of time and men in the distribution of goods. Only a beginning has been made on this line. The next ten years are likely to show an expansion of the principle, hardly comprehended as yet, and to induce results of tremendous moment for the race.

### Speculation in Oil.

In this issue of the Manufacturers' Record is published an elaborate exposition of the part to be played in the industrial development of this country expected of the Beaumont oil field. The writer of the article has studied the subject in all its bearings, and regards the fuel quality of the Beaumont oil as of paramount importance, and as destined to advance manufacturing and transportation interests in the territory within a wide radius of the point of production. Some of his figures as to the value of the oil produced in this country may be modified by the census, while the reader, in considering the subject of the demand for coal in Louisiana, Mississippi and Texas, dwelt upon by the writer, must bear in mind that in those States, as elsewhere in the South, other fuel in addition to coal or oil has long been used, and will continue to be used, and furthermore, that for many, many years to come, unless a miracle in the production of fuel is accomplished, such will be the demand for fuel that coal will not be supplanted by oil except where the expense of transportation for the latter enters.

In connection with this paper, which is exceedingly interesting, it is to be noted that speculation in Beaumont oil stock has begun at New Orleans, and that there seems to be a disposition to make risky ventures in the oil fields themselves. On this point a gentleman of wide experience in oil-field development writes to the Manufacturers' Record that the probabilities are that a great deal of money will be dropped by persons buying stocks in the Beaumont field. He adds:

There is absolutely no logical reason for the excitement that now prevails. A company going into the field quietly and taking up large acreage will find itself in a prosperous condition in ten years to come, while most of the present boom companies will have despaired.

With the great amount of ready cash now available in the South, the temptation to indulge in speculation is exceedingly strong. This should be resisted. The indications are that the Beaumont field is susceptible to great development, and investors who place their money there in the desire to receive returns of legitimate enterprise are not likely to be disappointed, for indications point to the possibility of this becoming the greatest oil-producing ter-

ritory in the world. The investor in boom stocks, though, may expect to lose, and hence great care is needed.

### Built Upon Small Industries.

Not many years ago Scotland Neck, N. C., was a town to which people from the surrounding country came to buy goods made at distant points. The Commonwealth, the weekly paper of the town, realizing that there was nothing for the growth of the town in mere trading, began to agitate for factories. In its desperation, after months of unsuccessful agitation for factories, it said that even a tanyard would be better than nothing. At the time the paper was contending for a cotton mill. Its efforts in this direction were finally successful, and it now has the satisfaction of recording the fact that after the first knitting mill came other mills and other kinds of manufacturing establishments, until today the weekly pay-rolls amount to \$1100. This amount may not appear great, but it is just \$1100 more than the amount of money earned in the town ten years ago, and is an apt illustration of the advantages accruing from the location of industries in any community.

The spirit of the Commonwealth has been manifested in hundreds of Southern towns, and even in cities which already have a high standing industrially. For example, at the last annual meeting of the Chamber of Commerce of Charlotte, N. C., Mr. R. M. Miller, Jr., chairman of the committee on manufacturers' interests, made a report strongly advocating an increased water supply, better facilities for small and cheap units of power, either steam, electric or gas, and the erection of a manufacturing apartment building for the encouragement of small industries with a common source of power. He recalled the fact that the largest mill in North Carolina today is an evolution from a small plant of a few years ago, and that another small cotton mill, which cost \$100,000 five years ago, has since that time paid its stockholders \$40,000, and he made the point that the successful manufacturing city is built up primarily by small and diversified industries, rather than by large single plants.

In Texas individuals and organizations are conducting a persistent campaign for the establishment of industries which will work up natural resources of the State into wealth. Mr. John Howard, one of these workers, instances at Athens a pottery plant started about three years ago by a young man from Illinois with a few dollars saved from his daily earnings, which is now shipping its wares by the carload to different points, and a fire-brick plant, the products of which are in demand all over Texas, and at Elgin a press-brick plant, and he asserts that the experience of men of limited means at these points in building up large manufacturing concerns may be duplicated elsewhere. This is being demonstrated in the Mississippi valley, the

Piedmont region and other parts of the South.

For Florida the Times-Union and Citizen of Jacksonville is urging its people to give more attention to their industrial resources. It shows that the cassava factory at De Land, begun only two years ago, has shipped 1200 tons of the finest starch, and that its business is now established on a firm basis, with a steadily-growing demand, and insists that other factories of the kind may flourish in the State. The paper points to Chattanooga, contributing so largely to the industrial development of its vicinity, and with that city as a model suggests that it would be better for Florida to work up its own lumber than to ship it to other points. So the story runs through the South. Here and there modest beginnings are growing into substantial industries, and are contributing their quota to the material advance of the whole South.

### The Newcomb Legacy.

Tulane University, New Orleans, is to be congratulated upon the legacy of about \$1,500,000 made to it under the will of Mrs. Josephine L. Newcomb, who died last Sunday in New York. The money is to be used in support of the college for the higher education of girls, founded for the university by Mrs. Newcomb in memory of her daughter. To this she had already made a number of handsome contributions, and it is estimated that her total gifts to the university amount to \$2,500,000. There are too few of such gifts and legacies to Southern institutions of learning. Until a few years ago the reason for the lack of liberal endowments was obvious. But the distressing conditions which compelled men and women of the South to give their whole minds to materialities are becoming but memories for many. Affluence before unknown has come to some. Some have already, like Mrs. Newcomb, though upon a smaller scale, showed their practical interest in the cause of education of the less fortunate. The number of these should be increased.

### FREE TRADE IN IRON ORE.

Facts in Criticism of Mr. Edward Atkinson's Plan.

Editor Manufacturers' Record:

Mr. Edward Atkinson, in the Manufacturers' Record of the 4th inst., in discussing "The Outlook for Iron in the Next Ten Years," says: "If common sense prevails, leading to the enactment of a reciprocity with Canada," etc. Canada upon several occasions refused to consider a treaty of reciprocity which included manufactured products. The American members of the joint high Anglo-American commission offered Canada complete free trade with the United States, or, in other words, free access to our market, with 70,000,000 consumers, in exchange for access to her market, with 5,000,000 consumers. This offer Canada declined. The failure to negotiate a fair-trade treaty rests with Canadian commissioners. There were twelve questions referred to the commission to settle, including the Alaskan boundary. Great Britain made a demand for a port upon the Lynn canal. With equal justice she might have demanded a port on Long Island. The American commissioners proposed to settle the eleven questions, including a treaty of reciprocity acceptable to Canada, and refer the Alaskan boundary question back to the two governments to dispose of. The Canadian commissioners replied, "all or nothing."

The American commissioners then proposed arbitration with the head of an American State as umpire. Again Canada refused, and demanded that the umpire should be the head of a European State acceptable to both governments. This proposal the American commissioners declined, and the commission adjourned sine die.

Pig-iron has been made in Canada for 140 years. Until 1879 it was admitted free from customs duty. The duty at the present time is \$2.50 per ton. The Canadian government pays a bounty of \$3 per ton for the production of pig-iron in Canada from native ores and \$2 from foreign ores, and \$3 for the conversion of pig-iron into steel ingots and puddled bars. In 1899 31,861 tons of pig-iron were made from foreign ores and 46,718 from native ores in Canada, and 39,718 tons were converted into steel. Canada tried free trade as a stimulant for iron production for more than 125 years. Under the free-trade policy she never produced more than 20,000 tons per annum, and therefore abandoned it and adopted a fiscal policy of protection and offered a bounty of \$6 per ton for the production of steel ingots and puddled bars. Under such conditions, why should we admit iron and steel from Canada free from customs duty?

In 1897 the imports of iron and steel and manufactures thereof into Canada were valued at \$19,768,725, of which the United States supplied 85 per cent. Why not let well enough alone?

Mr. Atkinson complains of the duty upon iron ore imported from Cuba. In 1899 25,000,000 tons of iron ore were produced in the United States and 368,750 tons in Cuba. The greater part of the ore mined in Cuba was consumed here. The duty was forty cents per ton—not a heavy burden for our iron producers to carry.

FRANCIS WAYLAND GLEN.

### Sweet-Potato Flour.

Mr. H. S. Morris of Vineland, who has organized in New Jersey the American Flour Manufacturing Co., which will erect mills to make flour from sweet potatoes, writes that the company does not intend to confine its energies to New Jersey, but will extend its operations to all sweet-potato-growing sections. He writes that it would cost from \$15,000 to \$20,000 to erect a plant with a capacity of 100 barrels of flour a day, and that the flour sells for \$5 a barrel. This flour is to be used as a blend for wheat, rye and corn flour, which, it is claimed, are thereby preserved, made richer and more nutritious and protected from mold or staleness. In this industry there may be great possibilities for utilization of the great sweet-potato crop of the South.

### Coal Production in 1900.

The production of coal by States for the South during 1900, as furnished to the Manufacturers' Record by Mr. F. E. Seward, editor of the Coal Trade Journal, was as follows:

Maryland (gross tons).....	3,176,000
Virginia (net tons).....	2,500,000
West Virginia ".....	21,500,000
Kentucky ".....	5,020,000
Alabama ".....	8,247,000
Tennessee ".....	2,904,000
Georgia ".....	250,000
Texas ".....	950,000
Arkansas ".....	1,000,000
Total.....	46,547,000

### Wants Tale.

Mr. J. J. Cassidy, editor of the Canadian Manufacturer, Toronto, writes the Manufacturers' Record to know where tale can be obtained either in crude form, as taken from the mine, or ground. Mr. Cassidy is inquiring for a Canadian manufacturing concern which wishes to purchase tale.

## SIGNIFICANCE OF THE TEXAS OIL FIELD.

[Written for the Manufacturers' Record.]

The center of the new Texas oil field is about three miles south of Beaumont, Jefferson county, Texas, which is eighty-four miles east of Houston, the largest railroad center in the State, and eighteen miles from Port Arthur, one of the principal seaports on the Gulf coast. The first gusher was struck January 10, 1901, and at once an enormous stream of oil, the full size of the six-inch casing, spouted to a height of over 200 feet, being forced upward by a pressure of over 600 pounds to the square inch. The pressure was so great that it was impossible to check the flow, which continued for ten days before being brought under control. The flow could not then be measured, but was conservatively estimated at 25,000 barrels a day.

When the gusher was again opened it filled a 35,000-barrel tank in less than twelve hours, or at the rate of 70,000 barrels a day. The greatest excitement followed the first strike, and active developments were immediately begun on all sides, with the result that two more gushers have been struck in the vicinity, with a capacity apparently as great as the first well. It is certainly safe to say that the three gushers have a combined production of at least 75,000 barrels a day, and probably considerably more.

It is not easy to understand what an enormous quantity of oil 75,000 barrels a day is, but when it is considered that the average daily production of the oil wells in the Eastern field is less than two barrels each, and that the Texas gushers produce as much as 37,000 of these wells, their enormous production can be more correctly appreciated. Their daily production is more than six times the daily production of all the wells in California; more than twice as much as those of Pennsylvania, and nearly one-half as much as the aggregate production of all the wells in the United States, of which there are about 90,000.

All flowing wells decrease in production as the pressure decreases, and the Texas gushers will probably do the same, which simply indicates that the enormous gas pressure has been relieved, and that the oil will have to be pumped from the wells, as is done in all of the older oil fields. As oil wells, however, are now pumped by gas engines, which use the gas from the wells as a fuel, the cost of pumping is only a nominal consideration. That a field of wonderful productiveness has been opened there can be no doubt in the mind of anyone who is familiar with the facts and has a general knowledge of the geological conditions.

It is difficult to grasp the significance of the discovery of oil in probably inexhaustible quantities so near the seaboard in Texas. It would almost seem as if nature had placed it where it would do the most good to the greatest number, at the least cost of production. When the many advantages possessed are compared with the great disadvantages under which oil is produced elsewhere, the possibilities are apparent, and it becomes evident that if the new oil field is as productive as now seems probable, it will certainly revolutionize the fuel question of the Atlantic and Gulf States.

No transportation monopoly of the oil production of the Beaumont field can ever be created. It is too near tidewater. No one ever has or ever will control ocean traffic. The ordinary schooner can carry freight as cheap, probably cheaper, than the largest steamship line. The present monopoly of the Eastern oil fields was possible for the reason that those fields

are scattered over a territory over 1000 square miles in extent, which required an enormous transportation system to market the product. The result was the construction of 35,000 miles of pipe lines, extending over a large part of New York, Pennsylvania, West Virginia, Ohio and Indiana. It required immense trunk lines to reach the seaboard, and the trunk lines of the Standard Oil Co. now amount to more than 5000 miles. The entire system cost over \$25,000,000 to construct, and gives the Standard Oil Co. its great power. It has enabled the company to pay its stockholders \$47,000,000 a year in dividends and create an asset that has a market value of over \$800,000,000. In the Beaumont oil fields nature has chosen a location so near a seaport that no great transportation system is required and no monopoly resulting therefrom can ever be created.

### Chiefly a Fuel Oil.

On first impression it would seem that as the Beaumont oil is chiefly a fuel oil, it would be of secondary importance to a higher grade oil, but when the relative demands for fuel oil and refined oil are considered, it is evident that a fuel oil, in the apparently inexhaustible quantities in which it has been found in the Beaumont field, is of much more importance and value than an illuminating oil in the comparatively limited quantities that nature has provided it. The demand for refined oil is to a certain extent limited, and the supply at the present time is approximately equal to the demand, while the demand for fuel oil is practically unlimited, and the demand has been met in only one country, Russia, where the consumption of fuel oil now amounts to more than eight times the combined consumption of all the refined oils.

From the information now obtainable, it is evident that the amount of illuminating oil which can be obtained from the Beaumont crude oil will not exceed 20 per cent., of somewhat inferior quality, so it never will enter into serious competition with the illuminating oil from the Eastern field. The quantity and quality of the lubricating oil that can be obtained has not been fully ascertained, but it is probable that it will produce a large amount of lubricating oil of excellent quality. As it is well known that lubricating oil is the most profitable part of refining, this will add very greatly to the value of the Beaumont oil. It is safe to say, however, that at least 75 per cent. of the production will be a fuel oil, and its importance to the South, and, in fact, the whole country, must be considered from that standpoint.

No intelligent understanding of the oil situation can be obtained without a general knowledge of the oil production of the world, and particularly that of the United States and Russia. The oil production of the world now amounts to about 138,000,000 barrels a year, or 378,000 barrels a day, of which Russia produces 68,000,000 barrels, the United States 58,000,000 barrels, the Dutch East Indies 3,000,000 barrels, Austria-Hungary 2,500,000 barrels and Roumania about 2,000,000 barrels. The remaining 5,000,000 are produced in eight different countries, and need not be taken into consideration, as the product is chiefly used for home consumption, and has no effect on the markets of the world. The oil fields of Japan are now attracting much attention, but principally on account of their future possibilities, as the production at present is less than 1,000,000 barrels.

Of the annual production in the United



States, about 53,000,000 barrels, or 92 per cent., is produced in the Eastern field, consisting of Ohio, West Virginia, Pennsylvania, Indiana and New York in the order named. Of the remaining 5,000,000 barrels, California produces 4,000,000 barrels, the Corsicana field of Texas nearly 1,000,000 barrels, and the balance is produced in Colorado, Kansas, Kentucky and Wyoming.

The total production in the United States since 1859, when the first well was drilled, amounts to considerably more than 1,000,000,000 barrels, valued at over \$1,200,000,000. The annual production has steadily and rapidly increased, as shown by the following statistics: Production 1860, 500,000 barrels; 1870, 5,260,745 barrels; 1880, 26,286,123 barrels; 1890, 45,823,572 barrels; 1900, 58,000,000 barrels.

Of the amount produced in the Eastern field, 31,000,000 barrels are required for domestic consumption, and the balance, amounting to about 22,000,000 barrels, is exported, chiefly as refined oil. The export of residuum and fuel oil has increased from 3300 barrels in 1895 to 513,000 barrels in 1899.

The oil production in the Eastern field is chiefly of two grades—Pennsylvania oil, which is produced in New York, Pennsylvania, West Virginia and Southeastern Ohio, and Lima oil, which is produced in Northern Ohio and Indiana. Pennsylvania oil commands about thirty-five cents a barrel more than Lima oil. The average price of the two grades for the last twenty-five years was \$1.03 per barrel; the average price for the last five years was \$1.07 per barrel, and the average price for the last year was \$1.13 a barrel.

Of the total production in the Eastern field, about 60,000 barrels a day, or about 22,000,000 barrels a year, is produced by the Standard Oil Co., having an average value of about \$1.10 per barrel, or more than \$24,000,000 in the aggregate, which sum is more than one-half the dividends paid on its stock. The company buys from the independent producers in the Eastern field over 85 per cent. of their production, so the company now markets about 48,000,000 barrels a year.

#### The Russian Oil Fields.

The oil fields of Russia are located on the Apsheron peninsula, near Baku, on the Caspian sea. Although these oil fields have been known for centuries, it is only during the last twenty-five years that they have been developed in anything like a systematic manner. The production has increased rapidly, as the following statistics indicate: Production 1880, 3,055,247 barrels; 1885, 14,179,833 barrels; 1890, 29,217,126 barrels; 1895, 47,713,983 barrels; 1900, 68,752,240 barrels.

The oil fields are 620 miles from tide-water at the Black sea, with mountains 3000 feet high intervening. The oil for export is transported by rail to the Black sea, and there transferred to tank steamers. A pipe line 145 miles long is now being constructed to transport refined oil a part of the distance, but no provision is being made for crude oil. The oil for home consumption is chiefly transported to the interior by way of the Volga river, which is open for navigation about eight months in the year. There are 128 tank steamers engaged exclusively in the oil trade on the Caspian sea and Volga river. As few of the large cities of Russia can be reached by water, it is necessary in most cases to transfer the oil from steamers to tank cars for distribution by rail. A few of the wells are flowing wells, but most of them have to be pumped, or rather bailed, as the large quantities of sand prevent the use of pumps. The average number of producing wells in 1890 was 1015, of which six flowing wells

produced over 9,000,000 barrels, valued at about \$7,000,000 at the wells.

The Beaumont oil field is almost identical in character of oil, relative location and geological conditions with the Russian oil fields. The Russian oil is a heavy fuel oil of about 26° B. gravity. The Beaumont oil is also a heavy fuel oil, and is 23° B. gravity. The Russian oil fields are located near the shore of the Caspian sea, and the Beaumont oil fields only a few miles from the Gulf of Mexico. The most productive oil strata in the Russian field are found from 1000 to 1500 feet below the surface and at practically the same depth below sea-level, both of which facts are exactly the same in the Beaumont field. The Russian wells are entirely through loose soil and sand, which is the same in the Beaumont wells. The Russian and Beaumont oils both have an asphalt base and many other characteristics in common. The Russian field now produces over 185,000 barrels a day, and, if the first wells can be taken as an indication, the Beaumont field will certainly become even more productive when sufficiently developed.

The Russian home market now absorbs over 98 per cent. of the fuel oil, or practically all that is produced, and about one-third of the refined oil, the balance of the refined oil, amounting to 10,000,000 barrels, being exported, and finding a market principally in Great Britain, India, China, France, Germany and Turkey.

Of the entire Russian production, about 70 per cent. is used as fuel, and a much larger percentage would be used for that purpose but for the fact that a certain amount of the volatile products must be taken from the crude oil in order to make it safe, the refined oil being considered of secondary consideration.

As a steam-producer fuel oil has no rival, and the demand for that purpose in Russia is constantly on the increase. According to government report, the demand for fuel oil has increased 900 per cent. in six years, and if the supply was doubled it would now be absorbed by the home demand. Nothing else is burned on the railways of Central Asia, the Caucasus, Southern Russia, the Caspian sea and the Volga river. It is used very largely in the industrial works throughout Russia, and it is also beginning to be used by the Mediterranean steamers and those in the East India and China trade, and its increased use is only limited by an adequate supply at a reasonable price. In this connection it is of special interest to note that, according to consular report, the increased demand has caused the price of fuel oil at Baku to rise from an average of 35½ cents per barrel in 1897 to 60 cents in 1898 and 87½ cents in 1899.

The Russian oil producers have to contend not only with a most disadvantageous location as regards the export trade and an exceedingly high cost of development, but also with a government royalty that in recent years has reached as high as forty-six cents per barrel. The government royalty was originally two cents per barrel, but this has been gradually increased until a maximum of the above figure has been reached, the average royalty on recent leases probably being about one-half that amount. As the price of crude oil at the well averages about seventy-five cents per barrel, it would seem as if the production of oil under all these disadvantages would not be profitable, but such is not the case. Notwithstanding these great disadvantages, the operations are carried on with great profit, and the companies engaged in the business pay large dividends, their stocks sell at high prices and are in great demand. The stock of the Russian Petroleum & Liquid Fuel Co. sells for 320 per cent. on par, and

pays dividends at the rate of 50 per cent. per annum on its common stock. Nobel Bros. pay dividends at the rate of 18 per cent. per annum, and their stock sells for 248 per cent. on par. The stock of the Baku Naphtha Co. pays 50 per cent. a year in dividends and sells for 780 per cent. on par, and the stock of the Caspian Societe pays 78 per cent. per annum and sells for 735 per cent. on its par value. These companies are all large and very strong financially, none of them having a capital of less than \$5,000,000.

#### In the Dutch East Indies.

The oil production of the Dutch East Indies, consisting of Borneo, Sumatra and Java, now amounting to about 3,000,000 barrels a year, is rapidly increasing, and promises to take a prominent place in supplying that part of the world with oil. The principal oil fields are conveniently located near good harbors, to which the oil is piped and then sold chiefly as a fuel for use on ocean steamships. The government report for 1898 states that its use as a fuel is also rapidly extending in other directions, and that eventually there will not be a single country east of the Suez canal not using liquid fuel.

The oil fields of Borneo are proving specially productive, and have proven profitable investments for large amounts of Dutch capital, there being nearly a dozen large companies operating in the various fields. The Shell Transport & Trading Co., with a capital of \$10,000,000, is the most prominent, and its shares now sell for over 300 per cent. on their par value. The shares of the Royal Dutch Petroleum Co., with a capital of \$3,200,000, command even a higher premium, and have paid dividends at the rate of 56 per cent. per annum. The Dordtsche Petroleum Co., with a capital of \$6,000,000, is the largest company operating in Java, and has a fine system for handling its product, consisting of pipe lines, tank cars and reservoirs, which are distributed all over the island.

#### In Other Countries.

The production of Austria-Hungary now amounts to about 2,500,000 barrels a year, which is not sufficient for the home demand. The field does not seem to be an attractive one, and nothing special in the way of increased production is expected. The companies operating there are mostly small, and do not seem to have been very successful from a financial standpoint. The oil is of good quality, and is mostly refined and used for illuminating.

The production of oil in Roumania, which now amounts to about 2,000,000 barrels a year, has only attracted attention in the last few years, and is of interest now only on account of its possibilities in the future, and the fact that it is used largely as a fuel. According to government report, over one-half of the locomotive and three-quarters of the stationary engines now use fuel oil under their boilers. The oil until recently has been produced from shafts about 600 feet deep, which have been put down the same as in mining. The last consular report shows about fifty drilled wells, from which is derived over 60 per cent. of the entire production.

A great effort has been made by the Standard Oil Co. to secure control of the Roumania fields, but without success. The same result has attended their efforts in the Dutch East Indies, where the government prevented them from securing a foothold. So far as is known, the Standard Oil Co. is not interested in the production of oil in foreign countries except in Japan, where it is reported to have recently secured large holdings.

#### California Fuel Oil.

It is not generally known that the production of oil in California was begun in

1864 and practically abandoned a few years later because the oil was then supposed to have no value, as a good grade of illuminating oil could not be produced from it. The present development was really started in 1880, but did not thrive until about three years ago, when its value as a fuel first began to be appreciated. Before its fuel value was known the price was often as low as twenty-five cents a barrel, although the production of the entire State then never exceeded 100,000 barrels a month.

In 1898, when its practical use as a fuel began, the price rose to an average of eighty-five cents, in 1899 to ninety-five cents and in 1900 to an average price of over \$1 per barrel at the wells. Thus it will be seen that while the production increased from 1,252,000 barrels in 1896 to over 3,000,000 barrels in 1900, the price steadily increased as a result of the growing demand for its use as fuel. The freight from Kern county, which is the largest producer, to San Francisco (which is the largest consumer except the railroads) is forty-three cents a barrel, making the price in San Francisco about \$1.43 a barrel. As the largest industrial works in San Francisco are rapidly adopting oil as a fuel, it is evident that it is a successful competitor of coal in that city even at \$1.43 per barrel.

The Santa Fe and Southern Pacific railroads have adopted oil as a fuel, and are now using about 6000 barrels a day. These two roads have about 600 locomotives in use in California, which are being equipped for burning oil as rapidly as the supply can be assured. Over 200 locomotives are now using fuel oil, which consume thirty barrels each per day. When the remaining 400 locomotives burn oil it will require 18,000 barrels a day to supply them, or about 6,500,000 barrels a year, which is nearly double the entire production of the State at present. The Santa Fe has recently made a contract for 750,000 barrels a year for five years at a price said to be \$1 a barrel at the wells.

The large industrial works throughout the entire State are rapidly adopting oil as a fuel, and there is no doubt that the home demand for fuel oil in California will exceed the supply for many years to come. The market for California fuel oil must, however, be chiefly confined to the Pacific coast, on account of the great distance from other centers of population. It can never be transported cheaply enough to compete as a fuel in other parts of the United States, and for the same reason it is doubtful if an export market can be developed, except for the refined products. It will probably come into general use for steamships on the Pacific, and the development of large fuel-oil fields in the Dutch East Indies will have a strong tendency to encourage its use in that direction.

Practically all the oil produced in California is a heavy fuel oil with an asphalt base ranging from 12° B. to 18° B., except that in Fresno county, which is about 34° B. It has been found that for fuel purposes the heavy oil has about the same value as the light oil as a heat and steam producer, the heavy oil having the advantage over the light oil of being safer, on account of the more volatile character of the light oil. Demonstrated facts prove conclusively that the prosperous condition of the oil business in California is due to its use as a fuel, and that the same prosperity would not have resulted from the production of an illuminating oil, which would have soon glutted the home market and then come into competition with the oil produced in the Eastern field.

#### Beaumont Oil for Export.

The special advantage which Beaumont oil has over any other oil in the world is



in the fact that it can be produced and marketed at a minimum cost. Being produced within eighteen miles of a seaport, it can be piped into tank steamers at a cost so small as to be almost incalculable, and it can be delivered at the seaports of the United States, Mexico, the West Indies, South America and Europe at a cost so low that no other fuel can be used in competition for steam purposes.

Fuel oil from wells in the Beaumont field can be piped to the seaboard at Port Arthur and run into tank steamers at a total cost of production and transportation of not to exceed ten cents a barrel, and, as three and one-half barrels of oil are equal to one ton of coal for steam purposes, this is equal to the delivery of coal at the seaboard at a cost of thirty-five cents a ton. As, according to the government report for 1899, the average cost of the coal exported from the United States was \$2.08 per ton, it is readily seen that it really is not a question of competition as far as export is concerned, but rather a question of margin of profit.

The location is specially advantageous for shipment to Mexico and the West Indies, which are the largest importers of American coal, receiving nearly 80 per cent. of all the coal that is exported, excepting that which goes to Canada. In considering the export feature of fuel oil and the advantageous location of the Beaumont field, the growing importance of New Orleans and Galveston as seaports should not be overlooked. These ports now stand respectively fourth and fifth in the value of their exports, which in each case amount to more than double that of San Francisco, and are only exceeded by New York, Boston and Baltimore.

The value at the wells of the oil production of the United States is placed by government report at \$65,000,000. The annual production of coal in the United States is 253,000,000 tons, valued at the mines at \$256,000,000, or nearly four times the value of the oil production. The coal used in the United States for steam and industrial purposes is about 80 per cent. of the entire production. Wherever fuel oil has come into competition with coal for steam purposes it has practically driven coal from the field. It has done it in Russia, it is now doing it in California, and it will do it everywhere where it comes into competition with coal which has to be transported long distances.

The average annual consumption of coal in the United States is approximately 3330 tons for each 1000 population. Louisiana, Mississippi and Texas have a combined population of over 6,000,000, and at the average rate of consumption require over 20,000,000 tons of coal a year. Louisiana and Mississippi produce no coal, and Texas only 883,000 tons, or about 4½ per cent. of their combined consumption. The coal produced in Texas is partly bituminous and partly lignite, which is a brown coal between bituminous coal and peat in character. The lignite is a very inferior article, and brings a low price, but the bituminous coal, although of ordinary quality, commands at the mines a higher price than in any part of the United States except on the Pacific coast, bringing even a higher price at the mines than the anthracite coal of Pennsylvania. The Beaumont oil field is located nearly at the geographical center of the coast line of these States, and is most favorably located for supplying their deficiency in fuel supply.

There is no question but that fuel oil, which can be put aboard vessel as cheaply as oil from the Beaumont field, can be delivered to any point in the United States that can be reached by water at a price which will give it a great advantage over

steam coal. The Atlantic and Gulf States contain 41 per cent. of the population of the United States, and at the average rate of consumption these States require 104,000,000 tons of coal a year. The total production of all these States is less than 16,000,000 tons, or only about 15 per cent. of their requirement. As nearly all the large cities in these States are on the seaboard, it is evident that the market in this direction alone would absorb the entire production of the Texas oil field at a price which gives it use an advantage over coal. That this will be the case cannot be doubted when it is considered how sensitive industrial works of every kind are to the cost of fuel, which is only second in importance to water transportation as a factor in the location and growth of industrial centers, and the slightest advantage is immediately taken by all large consumers.

In support of this statement the present use of natural gas as a fuel is of special interest. According to government report, the value of the natural gas consumed annually is over \$20,000,000, which is practically all used as a fuel. The Carnegie Company alone uses natural gas to the value of over \$1,000,000 a year, and the company maintains a pipeline system over 3000 miles in extent to reach the 130 wells scattered over 98,000 acres of gas territory. The gas fields of the United States are located in Pennsylvania, West Virginia, Ohio, Indiana and Illinois. These States, and the extreme western parts of Maryland and Virginia, produce 82 per cent. of the entire coal production of the country, which proves most conclusively that coal as a fuel is displaced even where it is mined by other fuel which is better and cheaper.

In order to thoroughly understand the fuel-oil market, it is necessary to have a general knowledge of the facts which determine the price it will command. If we compare the fuel value of Beaumont oil with that of Pocahontas coal, we must allow four barrels of oil to equal one ton of coal, while if we compare it to the ordinary steam coal used in the Atlantic and Gulf States, three and one-half barrels of oil will equal one ton of coal, and consequently if we divide the wholesale price of steam coal at any point by three and one-half, we will obtain the fuel value of oil at that point.

New Orleans is one of the largest coal-consuming points in the South, and the average wholesale price of coal there is about \$3 per ton, which is equal to eighty-six cents per barrel for oil, and deducting fifteen cents per barrel for transportation, it gives an intrinsic fuel value of seventy-one cents per barrel at the wells. There are very few places in the Atlantic or Gulf States where coal sells for less than \$3 per ton, and there are many places where it sells for much more, so it is safe to say that the fuel value of Beaumont oil at the wells is about seventy-one cents per barrel; but as consumers will expect to save money by changing from coal to oil, it is probable that Texas oil at first will not command its full fuel value, and that fifty cents per barrel will be about the average net price received for oil at the wells.

#### Transportation of Oil.

The cost of transporting coal by water is approximately \$1 per ton for 1000 miles, the cost being more per mile for a less distance and less per mile for a greater distance. The average rate from Baltimore and Philadelphia to the West Indies is about \$1 per ton, the distance being about 1000 miles, and the average rate to Mexico, Central America and the northern parts of South America is about \$1.75 per ton, the distance being over 2000 miles. Oil in tank steamers or

barges can probably be carried for less per ton than coal, on account of the decreased cost of loading and unloading, the bulk of each in proportion to weight being about the same.

Assuming that the cost of transportation is the same per ton, it is safe to say that Beaumont oil can be delivered to any point within 1000 miles of Port Arthur which can be reached by water for \$1 per ton, or fifteen cents per barrel, as seven barrels of oil weigh almost exactly one ton. A radius of 1000 miles from Port Arthur includes all Gulf ports in the United States, Mexico and Central America, those in the western part of Cuba, and all Mississippi river points as far north as St. Louis. A radius of 2000 miles from Port Arthur takes in all the Atlantic ports of the United States, Central America, the West Indies and the northern part of South America. It is thus plainly evident that the market which can be reached from Port Arthur at a transportation charge of from fifteen cents to twenty-five cents per barrel is so great that its absorbing power is practically limitless.

A coal mine with an inexhaustible output, located so near an Atlantic or Gulf port that the product could be loaded directly into barges, would be able to deliver coal at all other Atlantic or Gulf ports so cheap that it would drive from the market every ton of coal which had to be mined in the interior and transported long distances to those markets by rail. The Beaumont oil field has every transportation advantage that a coal mine with a similar location would have, with the added advantage that each ton of oil has fully twice the fuel value of a ton of coal, and consequently the transportation charge, in proportion to the fuel value, is only half as great on the oil as on the coal.

#### Fuel Oil for Steamships.

One great advantage which fuel oil possesses for use on steamships is that it can be carried in place of ballast, thereby occupying space that is usually useless. Coal must be carried in bunkers accessible to the boilers, while oil can be pumped from any part of the ship the same as water. There is no reason why a steamship should not carry sufficient oil to carry it around the world, and without taking space that might otherwise be used for freight.

The general public have an entirely wrong impression in regard to the safety of oil as a fuel. As a matter of fact, after the more volatile products are taken off, it is less inflammable than coal. Red-hot coal or even iron may be thrown into a tank of fuel oil without setting fire to the oil. For use as a steam producer, oil is fed into the fire-box through burners, the general characteristics of which are an upper nozzle for the stream of oil, a lower nozzle for the supply of steam to effect the spraying of the oil, and a central nozzle to furnish air for complete combustion. It is in the complete combustion of the oil wherein lies a large percentage of the practical advantage of oil over coal. A considerable portion of the heat value of coal goes off in smoke and cinders, while the entire heat value of the oil is obtained. This is the reason that practical results from use under marine, locomotive and stationary boilers are more favorable to oil than the comparative calorimetric tests in the laboratory. Laboratory tests show that one ton of steam coal contains as much heat as four barrels of fuel oil, but the practical results in the fire-box prove that three and one-half barrels of oil are equal to one ton of the average steam coal.

#### Oil for Railroads.

In addition to its economy as a steam producer, the advantages from the use of

fuel oil on railroads are numerous. The handling is much more convenient and expeditious than coal. It is stored in large tanks located at a sufficient height from the ground to ensure a ready flow to the engine tender, much the same way that water tanks are now operated. Rapidity of fueling, less manual labor, absence of smoke and cinders, ease of control and firing all combine to render it an ideal fuel for railroads.

As before stated, the railroads of California are now using 6000 barrels of oil a day, and will require at least 18,000 barrels a day for the Southern Pacific and Santa Fe systems alone. The combined mileage of these two roads in California is 4007. The Atlantic system of the Southern Pacific, which centers at Houston, amounts to 2506 miles, and the Gulf branch of the Santa Fe amounts to 1087 miles, or a total of 3593 miles for these two systems alone, both of which are using fuel oil on their California branches. The railroads of Texas have a total mileage of 9778, and the center of this entire railroad system is at Houston, only eighty-four miles from the Beaumont oil fields. With a pipe line to Houston, or by the use of tank barges, every railroad in Texas can be supplied with fuel oil at a price which will make its use almost certain. On the same basis as the California roads, it will require about 44,000 barrels of oil a day, or over 16,000,000 barrels a year, to supply the railroads of Texas.

The railroads of Louisiana and Mississippi, which center at New Orleans, have a combined mileage in these two States of 5299. Neither State produces any coal, and the Beaumont oil field is much nearer to New Orleans than any coal supply. Fuel oil can be delivered at New Orleans, either by tank steamers or barges, at a price with which coal, brought over 300 miles by rail or about 2000 miles by water, cannot compete. The substitution of fuel oil for coal on the railroads of Louisiana and Mississippi would require about 24,000 barrels a day, or nearly 9,000,000 barrels a year, and its use on the railroads of Texas, Louisiana and Mississippi would require in the aggregate at least 68,000 barrels a day, or 25,000,000 barrels a year.

There has never been a new oil field where at such an early stage in the development the oil sand was known to underlie so much territory as in the Beaumont field. While the extreme limits of the field are only conjectural, the wells have such a large production that there is no doubt that the Beaumont field alone will make Texas the leading oil State in the Union, and it is entirely probable that Texas will soon produce more oil than the combined production of all the other States.

The Neches river has been called the "Oil Creek" of Texas, and from an oil standpoint there is such a remarkable similarity between them that it is well entitled to the name. The oil seepages along Oil creek in Pennsylvania were known for many years before the first deep oil well was put down. Many shallow wells were dug, and the oil which seeped in was skimmed off the water and sold for medicinal purposes under the name of "Seneca Oil." This, except as to its use, is exactly what has been done along and in the vicinity of the Neches river for over thirty years, and there are over 100 wells from 100 to 300 feet deep between Sabine Pass and Nacogdoches from which the oil has been collected and sold, chiefly for lubricating. None of these wells were ever put down through the quicksand, as the oil seepage was supposed to come from the strata above. As a matter of fact, the oil did not originate from the strata above the quicksand at



all, but from the oil strata several hundred feet underneath, from which it had escaped, and its presence above the quicksand through which it had percolated was simply the natural result when water and oil comes in contact.

Oil was first discovered near Oil City, in Nacogdoches county, which is the fourth county north of Jefferson county, where the great gushers are located. Although the wells were all shallow, averaging only about 100 feet deep, sufficient oil was found to cause the construction of a 2000-barrel tank and a pipe line to the railroad; but it was found that these shallow wells, which started at from five to ten barrels a day, soon drained the surface oil and were not sufficiently productive to be profitably operated. As a consequence the industry did not thrive, and would probably have died a natural death had not the great Lucas gusher shown what existed underneath the quicksand and caused the surface seepages. That the oil in the gushers and in the seepages is from the same strata cannot be doubted when its characteristics are compared, both being practically identical as regards color, odor, gravity, viscosity and chemical analysis. The oil indications at the place the gusher was bored were exactly the same as exist at a hundred other places between Nacogdoches and Sabine Pass, and while it is not probable that many gushers like the first will be struck, yet they are possible at any time, and it is practically certain that oil in abundant quantities will be found wherever the same indications exist. The oil wells in Hardin county, which are about 300 feet deep, and those near Sour Lake, Jefferson county, have been the subject of government investigation and report on several occasions. The report for 1898 states that an analysis of the oil proves it to have lubricating qualities of great value and equal to any produced in the United States. This report also states that there is undoubtedly an oil flow of great magnitude starting in the vicinity of Corsicana and taking its course along the Trinity, Neches and Sabine river to Sabine Pass.

From the oil seepages which exist along the Neches river it is safe to say that the oil lands of the new Texas field, having the Neches river as a center, include a large part of Nacogdoches, Angelina, San Augustine, Tyler, Jasper, Hardin, Orange and Jefferson counties, Texas, and Cameron parish, Louisiana.

In this connection it is of special interest to note the area of the Eastern oil fields. The Pennsylvania and New York field extends from Allegany county, New York, diagonally across the western part of Pennsylvania for 175 miles to Green county, including in the field the larger part of seventeen counties. The West Virginia field, which is practically a continuation of the Pennsylvania field, covers a territory about 50 by 75 miles in the northwestern part of the State, including twelve counties. The Ohio field is divided into two separate fields, the Southeastern field, which includes nine counties, extending along the Ohio river for at least ninety miles, and the Lima field, which takes in ten counties and extends across the northwestern part of the State for over 100 miles. The Indiana field is practically a continuation of the Lima field, and is only partially defined, but it now covers a territory about 50 by 80 miles, including eleven counties. It will thus be seen that the Eastern field includes fifty-nine counties, with two distinct belts, having an extreme length of nearly 500 miles, and embraces a territory fully ten times as large as the counties along the Neches river which constitute the new Texas oil field.

That the production of this field will undoubtedly be greater than any oil field in the United States, and probably greater than the aggregate production of all the oil fields in this country, cannot be doubted by anyone who is familiar with the commonest facts in regard to the different fields. As before stated, there has been no other field in this country, except the Oil Creek (Pa.) field, where the surface indications of oil have been so numerous and widely scattered as in the Beaumont field, and there has never been anything to equal the high percentage of oil saturation which is found in the Beaumont field. When it is considered that over 100 feet of oil-bearing sand was found before the gusher was struck, and that the well would have been among the largest in the country, even if drilling had been stopped before the principal stratum was reached, some conception of the productiveness of the field can be formed.

An idea of what this thickness of oil sand means can be obtained when it is known that the average thickness of the oil sand in the Eastern field is less than twenty feet, and that a 10 per cent. saturation of a 100-foot stratum will produce 80,000 barrels of oil per acre. While heretofore this production has never been equaled in this country, it has been surpassed in the Russian field, where a 20-acre tract has produced nearly 40,000,000 barrels of oil, and is still producing over 12,000 barrels a day. The highest average production in the Eastern field, except in small pools, is about 2000 barrels per acre, which is the approximate average production of the Bradford field. In the Eastern and California oil fields the oil strata have been much disturbed by volcanic action, and the result is that oil is only found in the anticlinals or along their slopes, while in the Russian and Texas fields the oil strata are practically level and entirely undisturbed by volcanic action. The result is a more general saturation of the oil sand and a more even distribution of the productive oil lands.

The United States geological survey has a record of about 138,000 wells drilled in the Eastern field since oil was discovered, and in that entire number, representing over forty years' work of an army of drillers, there never has been a well that produced, except for a few days, more than one-tenth as much as the Beaumont gushers. Here are wells that are the first in the field to reach the deep sand, and their daily production is more than the combined daily production of all the wells drilled in the Eastern field during the first twenty years of the oil development, and more than the total production of any country except the United States and Russia. That the Texas field is the richest in the world there is every indication, and that its production will be millions of barrels per annum is easily realized when it is considered that the McDonald field has produced 22,000,000 barrels, the Alleghany field 36,000,000 barrels, the Bradford field 195,000,000 barrels, and the Baku field, where the geological conditions are identical with the Beaumont field, has produced over 820,000,000 barrels, of which about 70 per cent. has been used as fuel.

March 30, 1901.

#### Five Gushers, Now.

[Special Cor. Manufacturers' Record.]  
Beaumont, Texas, April 7.

There are now five big "gushers" dotting the prairies two miles south of Beaumont. That of the Higgins Oil Co. came in yesterday. The pressure gauge registered eighty pounds to the square inch. The Higgins Oil Co. is composed almost exclusively of Beaumont people, J. N. Gilbert of the Beaumont Lumber Co. be-

ing its president; W. S. Davidson of the First National Bank, vice-president; C. T. Heisig, secretary, and L. P. Norvell, treasurer. The company owns three small tracts of land situated in a semi-circle around the Lucas well, and distant not over a quarter of a mile at any point. The company has two other wells going down. The following is given out in reference to the new well, which was bored by Boughton & Wynn, by the Higgins Oil Co.: "The drillers claim that the oil pool struck by their well is forty feet deep, and that the oil rests upon a bed of sulphur. After the oil was struck the borers permitted the pipe to sink until it struck bottom, which it did at a distance of forty feet. The drillers then claim to have bored four feet into a bed of pure sulphur. Should these statements be correct—and the honesty of the parties concerned cannot be questioned for a moment, even if their technical knowledge should prove wrong—the fact is established, at least, that there is an oil lake that at one point, anyway, is forty feet deep." This well is located about 800 feet from the Lucas well. President Gilbert states that one day next week the well will be opened to test the flow, very probably the day that the Standard Oil Co.'s delegation arrives.

There have the past week been held meetings of oil producers and owners of oil territory, looking to the best methods of handling the output. As a result of these deliberations, a telegram was sent to J. D. Archbold of New York, representing the Standard Oil, asking him if his company would take care of the situation here. The following message in reply was received:

"New York, April 3.

"Robt. L. Henry, Beaumont, Texas:

"Telegram received. We have the Texas question under very careful consideration, and conclude to have Daniel O'Day, C. F. Lufkin and C. N. Payne go to Texas promptly for full investigation. They will fully represent our views, and we bespeak for them your courteous consideration. J. D. ARCHBOLD."

Further advices from the Standard stated the parties named could probably be expected during the coming week.

The feature of the past week has been the great amount of stock speculation indulged in by owners of oil land.

#### Kentucky Oil Field.

[Special Cor. Manufacturers' Record.]  
Somerset, Ky., April 4.

Several companies are being organized at this place for the purpose of developing oil fields in Pulaski and Wayne counties, Kentucky, and Fentress and Pickett counties, Tennessee. Experienced oil men who have visited the Wayne county field are satisfied that the well recently struck by the Somerset Oil Co. is a paying well, and will probably pump from 250 to 300 barrels per day. The Somerset Oil Co. has been organized at this place for the purpose of developing the Wayne county field. The Sunny Brook Oil Co., with Cincinnati and Somerset capitalists, with J. P. Hornaday as chief incorporator, has organized, with a capital stock of \$25,000, for the purpose of drilling several wells in Wayne county, Kentucky, and Fentress county, Tennessee. The development of the Wayne county field is proceeding rapidly, and several wells will be drilled as soon as material can be gotten and company organized. The Standard Oil Co. is extending its pipe line from Slick Ford, in Wayne county, to the Bobs Bar well, in Fentress county, a distance of about thirty miles, and contemplates the building of an oil refinery at Somerset. The Standard Oil Co. is now shipping oil from Somerset, and is making

several improvements in its plant at this place.

A great deal of building and development will take place here this spring and summer. Somerset only has one bank, and Cincinnati and Somerset capitalists have on foot a plan to organize a large savings bank and trust company at this place. The trust-company features of the institution are thought to be very valuable, for the reason that a large number of corporations are doing business within a few miles of Somerset, and the demand for an institution of this kind at Somerset will present itself immediately. Under the laws of Kentucky a banking corporation can also do a trust-company business, provided they secure this privilege in their charter, and the business men of this city are working up to the advantages of Somerset, and it is thought that many business enterprises will locate here within the near future. The Somerset Commercial Club is working for several factories which it expects to locate here. Somerset is the metropolis of the oil, timber and stave business in Southern Kentucky, and is the distributing point for a large territory, a division point on the Cincinnati Southern Railroad and the county-seat of the largest county in Kentucky; it has a population of nearly 4000, and is one of the busiest towns in the State of Kentucky.

#### IN DETROIT IN JUNE.

Dates Fixed for the Convention of the National Association of Manufacturers.

President Theodore C. Search of the National Association of Manufacturers announces that the executive committee has selected the dates of June 4, 5 and 6 for the holding of the sixth annual convention of the association, which will meet in Detroit. These dates, which are somewhat later than the usual time of holding the annual convention, were chosen in order to secure the advantages of a more favorable season in Detroit than would be found in January, during which month the conventions have usually been held heretofore.

These dates were chosen after consultation with the citizens of Detroit, who have manifested a great deal of interest in the coming convention, and who propose to make it one of the most notable gatherings that has ever been seen in that city. Mr. George H. Barbour of Detroit, the Michigan vice-president of the association, is in general charge of the arrangements in Detroit.

The opening of the Pan-American Exposition at Buffalo a few weeks prior to the dates fixed for the convention will enable manufacturers to arrange for a trip which will take in both points of interest. It is expected that arrangements will also be made for excursions to points of interest on the Lakes after the adjournment of the convention, so that the program of the convention week this year will offer more than the usual attractions for those who desire to combine business and pleasure in their attendance at the convention.

The detailed arrangements, which have been held in suspense pending the decision of the executive committee as to the date, will now proceed actively.

The number of inquiries received from those who desire to attend the convention and wish to know when it is to be held indicates an unusual interest in this year's gathering.

The sales in the Joplin (Mo.) district during the week ended April 6 were 10,953,640 pounds of zinc ore and 1,093,320 pounds of lead ore, valued in all at \$158,298.

**REDUCING THE STOCKS.****The Birmingham Iron Market Free From Excitement.**

[Special Cor. Manufacturers' Record.]  
Birmingham, Ala., April 9.

There was no excitement in the iron market the past week, and no special feature connected with it. There was good steady buying the entire week, and towards its close some interests advanced price to a basis of \$12 for No. 2 foundry. But all the interests did not follow the lead, as one could buy No. 2 foundry at the close at \$11.75. All lines of iron industries were represented in the buying, but there was an absence of round-lot orders. There were inquiries, but the market is so well sold up on popular grades that it is very difficult to place large orders unless for long-deferred delivery. One prominent interest announces that for Nos. 1 and 2 foundry and Nos. 1 and 2 soft they are sold up to September, and can take no further orders for those grades unless for delivery beyond that date. Other interests are more or less in the same fix as to the various grades, which makes the filling of mixed orders by one concern often a difficult matter. There were orders for basic iron which had to be declined because of inability to accommodate as to delivery. There may be an advance of 25 cents per ton, to a basis of \$12 for No. 2 foundry, as small buyers paid that price for it the past week. At that value sellers would be content to see the market stop and have a good resting spell. Sales for the long-deferred deliveries are becoming more frequent. Some of them were booked Saturday for October, November and December deliveries. It is estimated that stocks will show a reduction of 15,000 tons during March in this district. Pittsburgh buyers bought of us during February and March nearly 60,000 tons of gray forge alone, while of basic iron they have taken all they could get.

Shipping has been free as facilities permitted, and those whose deliveries are due are as urgent as ever to have them labeled "rush shipment." Many whose deliveries are not yet due are begging to anticipate them, and state that their stocks are so lean that it is with them a question of fresh receipts or a shut-down. Gray forge sold at \$10.50 mainly, though some went at \$10.75. No. 4 foundry sold at \$10.75, and a little at \$11. No. 3 foundry sold at \$11.25, and was in good request. No. 2 foundry sold at \$11.75, with small lots bringing \$12. No. 1 foundry is held all the way from \$12.25 to \$13. No. 1 soft is also anywhere from \$12.25 to \$13, and No. 2 soft sold at \$11.75, the same price as No. 2 foundry. No iron-clad rule governs differences in price now, as quotations show.

Steel continues to be in active demand, and the Ensley mill would have the world on its shoulders if it could accept all the business tendered it. As it is, the registered accepted orders amount to nearly 70,000 tons, and it will take fully three months to clean them up.

The Dimmick Pipe Works reports business as fine, with a great demand for pipe. When asked whence its orders came, the reply was from everywhere.

Some experts have of late been investigating the coal properties of T. H. Aldrich just across Tiptop mountain, near Bessemer. Four veins were found, one above the other. The top vein was the Pratt seam; the next was the America, then the Blue creek, and lastly the Black creek seam. It is a singular combination of some of the best coals in the district. The Blue creek seam is five and one-half feet without a parting, and its total width is ten feet. The situation of the mines (to

be) justify the assertion that they will be in time among the largest producers in Alabama. There is a great cry for experienced white miners of coal, and a small army could be comfortably located at paying wages.

The Walker county coal deal was consummated last week. It is understood that it includes all the companies engaged in shipping coal to New Orleans and way points, and also the Corona Coal Co. The latter is in receiver's hands, and court proceedings must precede consummation of trade. Pittsburg, by this deal, eliminates competition from the Mississippi river trade, and dictates prices to consumers. She is mistress of the situation.

J. M. K.

**The Pig-Iron Market.**

Matthew Addy & Co. of Cincinnati in their weekly report say:

"At the present time the feature of the market is the demand for iron for long forward shipment. Sales for the last half of year have been frequent, while sales for delivery the third quarter have been very much in evidence. The bulk of the buying has been by large concerns, who have purchased in big blocks. It is evident that they are determined to take no chances on the future. There has been nothing feverish in the market during the week. There has not been the previous rush and excitement, but there has been a steady and regular demand that has never let up for a single day. Consumption is keeping up at a wonderful rate, and requests from customers for faster shipment are pressing; in fact, a great many consumers are trying to get their iron shipped in advance of contract specifications, and in some instances when this is impossible they are inclined to feel aggrieved. From now on consumption of foundry iron is bound to increase, so it is not a difficult matter to see what will happen a little later in this direction."

**Southern Fuel in Demand.**

When the Russian cruiser Variag left Philadelphia to join the Czar's navy she steamed about 200 miles out of her way for the sole purpose of supplying her bunkers with Pocahontas coal. The fame of this coal has become so widespread and its superiority is so familiar to the Russian naval experts that it was decided to go to Norfolk to take on enough tonnage for the home voyage.

It may be said that Pocahontas coal is burned around the world, for cargoes have been sent within the last few years to nearly every country on the globe. It has been tested in competition with the best product of the Welsh mines, and as a result European governments have been very liberal in their orders for it. It is simply a case where merit is recognized, as is evidenced by its adoption by the United States as the standard fuel for its warships. It has also been endorsed by the Navy League of England as the only smokeless steam coal except that from the Cardiff mines. The interest in Pocahontas coal abroad is partly due to an analysis made by John Pattinson, the noted English chemist, who found that samples of the product submitted to him contained 86.51 per cent. of carbon, and that 15.4 pounds of water could be converted into steam by the use merely of one pound of the coal.

The commissioner of agriculture for the State of North Carolina reports an increase of 30 per cent. in the sale of fertilizers this season as compared with last year. He says this indicates a largely-increased cotton acreage, though there is a tendency on the part of farmers to use a larger quantity of fertilizers per acre.

**FOREIGN TRADE.**

This department is designed to set forth opportunities for the extension of the trade abroad of American manufacturers, and to record facts about the rapidly-developing commerce of the South.

**A Barcelona Project.**

J. Grau Just of Barcelona writes to the Manufacturers' Record that the following articles will find a sale at Barcelona: Lard, bacon, ribs and sides in brine, hams, preserved meats, butter and cheese, flours, corn and other cereals, machinery, motors of various kinds, electrical material and accessories for all manufacturing purposes. He suggests as a means of advancing trade at Barcelona the establishment of a sort of exposition more or less permanent at Barcelona, the cost of the exhibition to be divided pro rata among the exhibitors. He writes:

"The exhibition could be established in an ample and central location in this city, so arranged as to attract by its novelty, and with the personal organization necessary to insure, above all, a display for the obtaining of orders, handling of merchandise, the installation of machinery, etc." Mr. Just expresses a willingness to take charge of such an exposition upon reasonable conditions, and to come to America, if necessary, to complete details. He writes that it is understood that the exposition shall be for a number of years, and that it shall embrace the rights for all the provinces of Spain.

**New Orleans' Commerce.**

Mr. Fred Mueller of Mueller, Baccich & Clement, ship and steamship agents and brokers of New Orleans, has prepared in pamphlet form a comparative statement of the exports of cotton and grain from New Orleans to the United Kingdom and the Continent during the past three seasons. The figures of shipments are a striking illustration of the advance of New Orleans as an exporter, but perhaps even more significant is the list of foreign ports to which shipments have been made. They include Antwerp, Aarhus, Barcelona, Bayonne, Belfast, Bremen, Bristol, Copenhagen, Cork, Coruna, Dublin, Dunkirk, Esbjerg, Falmouth, Ferrall, Fiume, Genoa, Glasgow, Hamburg, Havre, Hull, Kope, Leith, Lisbon, Liverpool, London, Londonderry, Lynn, Malaga, Manchester, Marseilles, Naples, Narva, Newcastle-on-Tyne, Newry, Nyborg, Oporto, Plymouth, Pasages, Portland, Queenstown, Reval, Rotterdam, Rouen, Southampton, Trieste, Tyne Docks, Valencia, Venice and Yokohama.

**Trade With Spain.**

Nicholas Agusti of Barcelona, Spain, writes to the Manufacturers' Record that he is anxious to introduce into Spain American machines for the production of hosiery and dressed hides for boot and shoe manufactures. Alfredo Vital, also of Barcelona, writes that England, Belgium and Germany send their coals, machinery, steel goods and dyes, Holland and Australia send lumber and yarns, and Russia cereals, hemp and other articles suitable for Spain, which has commercial treaties with those countries. He points out as a difficulty in the way of extending American trade with Spain the absence of a proper commercial treaty between that country and the United States.

**Wants Agricultural Implements.**

In a letter to the Manufacturers' Record F. Bockelmann of Barrenquilla, Colombia, writes:

"Our dwidwi and cotton crops, which are confined to two coast departments,

Bolivar and Magdalena, are arriving here for shipment, and the cotton mills, of which there are two, will have enough work for this season. During the coming year we propose to erect a cotton-cleaning mill, and we should like to have catalogues of mill builders. Our firm would also like to have catalogues of firms manufacturing agricultural implements, especially those intended to be used in handling cotton, coffee and cane."

**Large Contract.**

American contractors will erect the buildings for the Westinghouse Electric Co. of Manchester, England. This corporation will have one of the largest plants for the manufacture of electrical machinery in the world, employing several thousand men. Messrs. James Stewart & Co. of St. Louis are the contractors who will do the work.

**Notes.**

A New York dispatch is to the effect that timber companies in Australia are preparing to award a contract for 10,000 axes to be manufactured in this country. In addition to Australia, Northern Europe has also become an important market for such exports.

Australia and South Africa are at present extensive markets for American pumping machinery, which is used not only in the mines, but on live-stock ranches for pumping water. German firms in South Africa are the principal purchasers of the American machinery.

On account of the construction of water-works and sewerage systems in Central America and Mexico, it is calculated that the promoting companies will soon be in the market for about \$500,000 worth of pipe, the contracts for which will be awarded to American manufacturers.

The Mexican-American Steamship Co., which operates a service between New Orleans and Tampico, Vera Cruz and Progreso, has decided to include the port of Coatzacoalcas, on the southern coast of Mexico, in its list. The first freight consigned to this port consisted of a quantity of locomotives, freight cars and other material for a railroad to be built in this section of Mexico.

The necessary equipment for building the Ecuador Railroad, for which the J. P. McDonald Co. of New York has the contract, will be furnished from this country. As about 5000 hands are now on the pay-roll, the quantity of tools, rolling stock, etc., required is very large. It is understood that the New York representatives of the McDonald Company will soon award a contract for \$50,000 worth of tools alone.

As an indication of the wide range of products for which a market is offered in Cuba, orders for the Francisco Sugar Co. recently placed with the American manufacturers may be cited. They included engines to develop 1500 horse-power, material for fifteen miles of railroad line, three locomotives, sixty cars, three sugar mills with the necessary clarifying apparatus, vacuum pans and evaporators, six water-tube boilers and 1200 tons of structural steel for the various buildings.

Capt. Boyd M. Smith has had confirmed to him by the court the purchase of the mining property near Mineral, Va. formerly belonging to the Pyrites Mining & Chemical Co. of Virginia. Captain Smith having complied with the decree of court, the property has been turned over to him. He has resumed shipments, and it is his purpose to complete restoration of the plant to its former capacity and do business on a larger scale than before the fire.



## TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

## Southern Cotton Spinners.

The next annual meeting of the Southern Cotton Spinners' Association will be held at Atlanta on May 9 and 10. In addition to the annual address of Dr. J. H. McAden and a response by Mr. D. A. Tompkins to an address of welcome by a citizen of Atlanta, to be selected, addresses will be made by United States Senator John L. McLaurin of South Carolina; Major J. H. Hanson of Macon, Ga.; Mr. James I. Hooker of Cincinnati, Ohio; Mr. Hoke Smith of Atlanta, Ga.; Mr. C. J. H. Woodbury of Boston, Mass., the secretary of the New England Cotton Manufacturers' Association; Mr. A. F. McKissick of Pelzer, S. C.; Mr. S. H. Hitchcock of the United States Department of Agriculture, and Mr. Sidney H. Payne of Boston, Mass.

## Two \$30,000 Knitting Companies.

The Mississippi Knitting Mills of Laurel, Miss., has been incorporated, with capital stock of \$30,000, to build a knitting plant, by Messrs. Edmund K. Stallo, W. F. Pettibone, L. W. Denson, Andrew Glannagan, Napoleon Gay, T. G. McGuffie, J. L. Hughes and E. D. Pierce. Mr. Stallo was reported last week as proposing an enterprise of this character.

The proposed company of Jos. B. Bell at Columbus, Miss., recently reported, has filed articles of incorporation as the Columbus Hosiery Mills, the capital stock being \$30,000. Contracts for building and equipping a plant will be arranged soon.

## The Rowe Mill.

The Rowe Knitting Co., previously reported as incorporated, is awarding contracts for the erection of its proposed \$200,000 spinning and knitting mill at Huntsville, Ala. Geo. B. Hinman of Atlanta, Ga., has contract to erect the main building at \$35,000; the structure will be of brick, 80x250 feet, two stories high. Yarns will be spun in this plant and then knit into underwear. The company is composed of New York knitters, as named some weeks ago, its leader being W. H. Rowe, Jr., of the Wayside Knitting Co., Troy, N. Y., and other companies.

## The Cotton Movement.

In his report for March 30 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that during the seven months of the present season the amount of cotton brought into sight was 8,896,022 bales, an increase over the same period last year of 589,957 bales; exports were 5,002,606 bales, an increase of 272,045; takings by Northern spinners 1,651,315 bales, a decrease of 408,662; by Southern spinners 1,027,252 bales, a decrease of 42,480 bales.

## A \$100,000 Enlargement.

It is announced that the Sanford Cotton Mills of Sanford, N. C., has decided to double its entire plant, necessitating the expenditure of about \$100,000. The company has ordered 5000 spindles and 240 looms and other complementary additional machinery, and same is now being installed in position. The equipment of the

plant has until now been 5000 ring spindles and 250 looms, manufacturing cotton piece goods, warps and skeins.

## Textile Notes.

The American Cotton Co. in March shipped 39,067 roundlap bales abroad.

The Eagle & Phenix Mills of Columbus, Ga., added more looms during the week, their number being 110.

The Highland Park Manufacturing Co., Charlotte, N. C., will build a new weave-house and an annex to the shipping-room.

James A. Benson of Washington, Ga., proposes the establishment of a cotton factory, and will endeavor to organize a company.

The proposed company for Newroads, La., recently reported, contemplates a capital of \$75,000. Z. T. Henderson continues to further this proposition.

The Itasca (Texas) Cotton Manufacturing Co. has increased capital from \$100,000 to \$150,000. This is one of the newly-organized companies of the past several months.

The Payne Cotton Mills of Macon, Ga., has disposed of the \$100,000 of bonds which it was recently authorized to issue. The funds obtained will be expended for enlargements.

The Lockland Knitting Mills of Scotland Neck, N. C., is erecting an additional building, in which will be installed new machines to double output to 300 dozen ribbed hose daily.

The proposed company at Minden, La., continues to be furthered. Messrs. J. R. Miller, T. Crichton, T. H. Drake and others are organizing this company to build a cotton factory.

J. G. Jones of Cordele, Ga., has made a proposition for the establishment of a \$30,000 knitting mill at Adel, Ga. The proposition is that the mill will be built if Adel investors will take \$10,000 of the stock.

The Cheswell Cotton Mill Co., Westminster, S. C., intends to increase capital from \$100,000 to \$200,000. Probably it is intended to make enlargements to the present plant of 10,000 ring spindles and 348 looms.

Thos. J. Killebrew of Newton, Ala., has added new machinery to his cotton and woolen mill. The machinery included 240 spindles and one mule and six looms, with necessary complement. A pants factory will be added, building to be erected for the purpose.

The Knoxville (Tenn.) Knitting Mills Co. confirms the recent report that it purchased the knitting plant of the George Manufacturing Co. of Greensboro, N. C. The machinery has been removed to Knoxville, and is in operation there. The company contemplates buying still more machinery.

The Edna Cotton Mills of Reidsville, N. C., has completed the extensive enlargements previously announced. New buildings were erected and 9572 spindles installed, giving the plant a total of 23,000 spindles. New boilers, engines, dynamos and other machinery were also installed. About \$75,000 was expended.

The Chicora Cotton Mills of Rock Hill, S. C., reported some weeks ago as incorporated, has acquired and will operate the Crescent Cotton Mills. The latter is a plant of 7904 ring spindles and 192 looms, and to this the new owner will add 3500 spindles and other machinery, all of which has been ordered. About \$40,000 will be expended.

The Isatetta Mill at Augusta, Ga., has been sold to Messrs. Woodward, Baldwin & Co. of Baltimore and New York, who have been selling agents for the owners.

The price paid was \$19,395. The plant contains 4181 ring spindles and 150 narrow looms for manufacturing plaids, and will be put in operation. It has been closed several months.

Control in the Thomas Cotton Mills of Little Rock, Ark., has been purchased by Little Rock parties from Pine Bluff (Ark.) parties, and the company reorganized this week. A. D. Thomas was re-elected president. It is understood that the company will enlarge the mill. At present the spindles number 3300, twines, rope and batting being the product.

Mr. Ernest L. Harris, consular agent of the United States at Eibenstock, announces that an apparatus has been invented in Germany for the production, through electrolysis, of chemic, or bleaching liquid, out of ordinary brine, the product being sodium hypochlorite, which is attracting considerable attention among textile manufacturers. It is claimed that the chemic obtained by this method produces a whiteness superior to that of the English bleaching liquor.

The Neuse River Mills at Neuse, near Raleigh, N. C., under construction for some months, is about completed, and is in part operation. The finished mill will contain 5000 ring spindles, 150 looms, etc., housed in a three-story 60x200-foot stone building, and the product will be 36-inch sheeting, four yards to the pound. Water-power is used from the Falls of Neuse, 300 operating the mill, with 125 additional developed. The power dam is seven and one-half feet high, 450 feet long. About \$100,000 is invested. It is said more looms will be installed soon.

## QUOTATIONS OF COTTON YARNS.

By Buckingham & Paulson, New York, Philadelphia and Chicago, April 9.

No. 10s-1 and 12s-1 warps.....	12 @12½
No. 14s-1 warps.....	13 @—
No. 16s-1 warps.....	13½ @—
No. 20s-1 warps.....	14 @—
No. 22s-1 warps.....	14½ @—
No. 26s-1 warps.....	15 @—
No. 6s to 10s yarn.....	12½ @—
No. 12s-1.....	13 @—
No. 14s-1.....	13½ @—
No. 16s-1.....	14 @—
No. 20s-1.....	14½ @—
No. 22s-1.....	14½ @15
No. 8s-2 ply soft yarn.....	12½ @13
No. 10s-2 ply soft yarn.....	13 @—
No. 8s-2 ply hard.....	12½ @—
No. 10s-2 ply hard.....	12½ @—
No. 12s-2 ply hard.....	12½ @12½
No. 14s-2 ply.....	12½ @12½
No. 16s-2 ply.....	13 @13½
No. 20s-2 ply.....	14 @14½
No. 24s-2 ply.....	14½ @15
No. 26s-2 ply.....	14½ @15
No. 30s-2 ply yarn.....	15½ @16
No. 40s-2 ply.....	22 @23
No. 8s-3, 4 and 5 ply.....	12 @12½
No. 20s-2 ply chain warps.....	14 @14½
No. 24s-2 ply chain warps.....	15 @—
No. 26s-2 ply chain warps.....	15½ @—
No. 30s-2 ply chain warps.....	16 @—
No. 16s-3 ply hard twist.....	13 @13½
No. 20s-3 ply hard twist.....	14 @14½
No. 26s-3 ply hard twist.....	15 @—

Market dull; prices nominal.

## Prosperity Around Alma.

[Special Cor. Manufacturers' Record.]  
Alma, Ark., April 5.

Adams Bros. are building a cotton gin and saw-mill here. This will make three mills and gins. Col. Jacob Yoes, one of the wealthiest men of this part of the State, is arranging to build a cotton gin and saw-mill on his 4000-acre plantation three miles south of Alma. At Winslow and at Brentwood fruit evaporators will be built this season.

A plant to can berries is needed at some point in the Alma and Van Buren strawberry and peach belt, as thousands of dollars' worth of berries and fruit is allowed to go to waste in the fields each year.

Never in the history of this section have times been as good as now. The good crops last year gave an impetus to business which has put all the lands in cultivation and brought about all kinds of improvements and new enterprises.

J. E. LONDON.

## COTTONSEED OIL.

This department is open to the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

## Cottonseed at Memphis.

[Special Cor. Manufacturers' Record.]  
Memphis, Tenn., April 8.

Quotations officially posted on the Cotton Exchange today were as follows: Cottonseed, bulk, rail or wagon, \$11 per ton; river, \$12; oil, in carload lots, per gallon, prime crude, 29 cents; off crude, 27½ cents; prime summer yellow, 32 cents; meal in 100-ton lots, per short ton, choice, \$18.50 to \$18.75; prime, \$18.25 to \$18.50; off, \$16.75 to \$17.25; cake, in similar quantities, choice and off, nominal; prime, \$18.50 to \$18.75; linters, No. 1, nominal; No. 2, 3 to 3½ cents per pound. Bids on the Merchants' Exchange were reported as high as 30 cents for prime crude, and 32½ to 33 cents for prime summer yellow. Efforts are being made to raise the prices, and further advances are confidently predicted.

## Cottonseed-Oil Notes.

The Southern Cotton Oil Co. at Barnwell, S. C., will close down for the season this week. This mill is one of the most successful of its kind in the South. Its manager is Mr. G. S. Fitzsimmons.

The Van Alstyne Cotton Oil Co. of Van Alstyne, Grayson county, Texas, has been chartered, with a capital stock of \$50,000. The incorporators are J. N. Taylor, R. L. Burns, J. A. McKinney and others.

A charter has been issued to the Mertens Co-operative Gin & Oil Mill Co. of Mertens, Hill county, Texas, with a capital stock of \$40,000. The incorporators are Thomas H. Lawrence, J. W. Parks, J. W. Langford and others.

The cottonseed-oil mill at Piedmont, Ala., twenty miles north of Anniston, was destroyed by fire on the 5th inst. The mill was owned by S. H. Cheney, J. J. Eubanks and N. A. Alexander. The loss is estimated at \$3000, with no insurance.

The market for cottonseed oil in Dallas, Texas, last week was firm and higher, prime crude oil selling for 28 cents, with off crude correspondingly higher, with an active demand. Cottonseed meal was dull at \$20 per ton delivered at Galveston. It is stated that about 60 per cent. of the Texas cotton-oil mills have shut down, and that 75 per cent. will have closed by the 15th of April, the balance running until late in May.

The following are official quotations on cottonseed and cottonseed products, as posted at the New Orleans Cotton Exchange on the 9th inst.: Prime refined oil, in barrels, 33 cents per gallon; off refined oil, in barrels, 32 cents per gallon; prime crude oil, loose, 27 cents per gallon; prime cottonseed cake, \$22.50 per ton of 2240 pounds; off do., nominal; prime cottonseed meal, \$22.50 per ton of 2240 pounds; off do., nominal; soap stock, loose, 1.07 cents per pound; linters, per pound, choice, 4½ cents; A, 3½ cents; B, 3½ cents; C, 3¼ cents; cottonseed in sacks delivered in New Orleans, \$14.50 per ton of 2000 pounds; in bulk, delivered in New Orleans, \$13.50 per ton of 2000 pounds.

At a conference last week of State officials of North Carolina and representatives of the South Carolina and West Indian Exposition it was decided that North Carolina shall be represented at Charleston. The exhibit will be under the auspices of the State department of agriculture, with the co-operation of State Geologist Holmes.



## RAILROADS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### TO TAP MEXICO'S RICHES.

**American Syndicates May Combine in a Transcontinental Line.**

Some months ago the Manufacturers' Record gave some particulars regarding the proposed Kansas City, Mexico & Orient Railroad, which is being built by Mr. A. E. Stilwell and his associates, and pointed out its great value to the South by affording the shortest route for the cotton and cotton goods of this section to the Orient. "Holland," the New York correspondent of the Philadelphia Press, in discussing this road, gives the following interesting survey of the situation:

"When Mr. Creel, who is known to financiers and railway capitalists here as one of the most energetic and enterprising of the citizens of Mexico, was in New York a few days ago he was asked what had become of the subsidy he possessed and the concessions also owned by him and those whom he represents granted by the Mexican government to aid in the construction of a railway from a junction with the Mexican Central system at Chihuahua to the Pacific coast at Topolobampo. Mr. Creel seemed not disturbed by this question. 'We have,' said he, '\$25,000 in gold deposited by Mr. Stilwell as a forfeit, and he has hanging over him also his agreement with the Mexican government, which is also to be forfeited unless he and the capital that is behind him construct at least seventy-five miles of this railway before October 26 of this year.'

"Mr. Creel was of the opinion that he had good security. Since he returned to Mexico word has been received here—in fact, within a day or two—that the probability is that Mr. Stilwell and his syndicate will build these seventy-five miles not from the present terminal of the railway running westerly from Chihuahua, but that he will go to the harbor of Topolobampo and build northeasterly toward Chihuahua. If he does that he will save his \$25,000, his subsidies and his concession, but it is a rather short time within which to complete this link in the transcontinental system. However, construction will not be very difficult. It is the Sierra Madre mountains, offering, as they do, difficulties greater than any that were found in our own Rockies or even in the canons of Colorado, that cause capital and engineers to shake their heads almost in despair as they plan for a Mexican transcontinental system. When Meiggs carried his Peruvian Railway over the Andes he encountered no greater difficulties than the Sierra Madre offer to the civil engineers.

"Were there a pass somewhere in Northwestern Mexico we should already have had a transcontinental railway bringing the cotton belt of the South within 600 miles of a deep-water harbor upon the Pacific, 1500 miles nearer Japan and quite as much as that nearer China and the Philippines. Last winter one of the more influential of the commerce makers of Japan said to Mr. Foster Higgins: 'Build your railway that now stretches from El Paso southwesterly nearly 200 miles, clear through to a good harbor upon the Gulf of California, and we of Japan will put a line of steamships to run between Japan, Honolulu and this harbor, and we will increase our cotton imports from the United States from 50,000 bales to 200,000 bales within five years.'

"Where would James J. Hill and his

long-distance route from the cotton belt in Seattle find himself with respect to cotton transportation to the Far East were Mr. Higgins and his syndicate able to see their way across the Sierra Madre mountains to the harbor of Topolobampo?

"C. P. Huntington seemed at one time to be stretching one of the tentacles of the Southern Pacific Railway southward through Northern Mexico to Guaymas; in fact, a little railroad had been built running almost due north, coming out just about in the meridian of Tucson, Arizona. There was so little traffic that they actually ran only one train a week either way, and did that simply to save the charter. Yet Mr. Huntington bought it, although he certainly did not expect to develop a Pacific harbor at Guaymas, as he had already created a great port at Newport News upon the Atlantic. Not until a little while before his death was it known that he was one of those who was in the secret of the existence of one of the world's great storehouses of coal, both bituminous and anthracite, not very far from the coast of the State of Sonora, in Northwestern Mexico. Huntington bought perhaps a hundred square miles of this coal territory, and he knew that coal sufficient to supply not only all of Mexico, but all of the needs of California and the whole of our Pacific slope for centuries could be mined in this coal field. He undoubtedly intended to build a spur of this little rusty-railed railroad to these coal mines, and then he would have had traffic enough for a railroad that seemed to have been absurdly built.

"William E. Dodge and his partners in New York some years ago listened credulously to the reports of an expert who had been sent into Western Sonora to examine an alleged deposit of copper. After they had heard this expert's report and had made further and exhaustive investigations they bought this copper mine, and there seems to be authoritative information that it may match in the richness and possibly the extent of its deposits even the greatest of the copper mines of this country. But it is situated far in the interior; nothing but a mule's back is available for getting the ore to civilization until Mr. Dodge and his associates build, as they propose to do, a railway running from Douglas on the boundary of Mexico and the United States to this copper field. Douglas is so named because Professor Douglas, who is among the leading mining experts of the world, had ventured into Mexico at that point, and after thorough exploration had made reports that justified the first expert opinion that had called this State of Sonora one of the richest mineral territories in the world.

"The foothills of the Sierra range contain not only superficial evidences of gold and silver, but the mark of the pick and the spade of mineralogists who have brought out fascinating reports of the wealth in precious metals in that region. Two hundred and fifty miles south, at Batopilas, Alexander M. Sheppard, once called the 'Boss of Washington,' has been mining silver for many years, but his deposits are in a valley whose depression is 4000 feet below the mountain ranges, and the only way he can get his silver out is by pack mule, just as the Incas of Peru did 500 years ago. They can get a railroad to Batopilas, but it would probably cost more to build it than was ever paid for the construction of any road, and Mr. Sheppard's solitary mines seem hardly worth the venture, even if they are as rich as some of his friends assert.

"If Mr. Dodge and his associates, after they have completed their railroad from Douglas to their rich copper mines, should swing around, following closely the Mexican boundary line, they could probably, at

comparatively small cost, flank the Sierra Madre mountains and make a connection with the road from El Paso which the Higgins syndicate is now constructing; in fact, that proposition is under consideration, and it may be that it will point the way for the construction of the much-sought transcontinental system.

"Some years ago the Mexican government, being extremely anxious that a railway should be constructed from some point upon the Mexican Central system, that being the great national road of Mexico, offered tempting subsidies and profitable concessions to any capital that would undertake this road. But there were the Sierra Madre mountains with terrific canons, involving impracticable grades or commercially impossible tunnels, that stood in the way of any acceptance by capital of this proposition. There were some mines alleged to be rich in silver some distance west of Chihuahua, which is the first city of considerable size south of El Paso on the Mexican Central line. If those mines could be developed then there might be traffic enough, it was thought, to make a railroad pay. Mr. Turrell, once very prominently associated with the Sugar Trust, went there, and after a while there came reports that made the mouths of the most experienced prospectors water. He was mining, it was said, at a profit of 50 per cent. on the investment, and that report undoubtedly caused the creation of the syndicate of which Oliver Payne is a prominent member, and with which Mr. Creel, the banker of Chihuahua, was associated. They undertook to build a railroad on the lines proposed by the Mexican government, but they were bound to undertake the whole or none of it—that is to say, to construct the road from Chihuahua to Topolobampo, on the Gulf of California. They did build to within a few miles of Concepcion, and have there stopped, looking perhaps for the day when the Higgins syndicate will complete its line from El Paso to Concepcion. If there should be a junction of this kind at Concepcion, then it would be an ideal consummation if from Concepcion the line were carried through to Topolobampo, the two systems, the Higgins and the Payne, becoming in effect one.

"Mr. Stilwell, however, came upon the field last summer and made a proposition to Mr. Creel to take the road from Concepcion to Topolobampo off his hands, and when Mr. Creel demanded substantial, yellow-metal guarantee of good faith and financial ability, Mr. Stilwell deposited in trust with him \$25,000 in American gold coin. That is the money which Mr. Stilwell must forfeit if he does not complete seventy-five miles of this road before October 26, and he must forfeit in addition the governmental concessions, which were most tempting.

"Should he build by October 26 seventy-five miles of this road, he undoubtedly would establish financial credit, so that he might be able to carry his road over the Sierras to Concepcion. When that is done, if it ever is, we shall have the shortest transcontinental line from the great cotton belt of the South, and El Paso will become of vast importance as the chief distributing point of the traffic of the United States, or at least of the southern part of the United States, with the Far East.

"It sounds like tales of fairyland to hear the authoritative experts tell of the richness of that part of Mexico which offers the shortest of possible transcontinental routes. There is one district in that region that is reported by the timber and forestry experts who have recently come out of it to be undoubtedly the richest timbered district in the world. Even ex-

perienced foresters roll their eyes in amazement as they tell of the timbered wealth of this district, but capital here does not as yet dare approach it. The canons, the chasms, the sheer precipices rising thousands of feet from the valley seem to make an impregnable fortress to any attack that civil engineers having railway construction in view can possibly make, and perhaps by and by a way may be found to reach this district consistent with reasonable expenditure of capital. Then, too, in a part of Chihuahua there is an agricultural region capable of raising corn sufficient to feed all Mexico for many years, but transportation has not yet approached this region, so that Mexico is compelled to pay a dollar a bushel or thereabouts for the grain that is brought over her borders to the citizens.

"Aside from the fascinating tales that describe the prodigious natural resources, there is another story to tell if it were possible to obtain all the details. That is the movement of American railway capital concentrating at El Paso, aiming for the control of the Mexican railway systems that run from north to south. Mr. Gould, the Atchison people, the Southern Pacific people, and, beyond any question, Mr. Cable and his Rock Island system, are concentrating at El Paso, feeling their way probably toward some great consummation that must inevitably give to the United States commercial or traffic supremacy in the Republic of Mexico.

"Mr. Cable is rapidly approaching El Paso with his system, and no one who knows him well has any idea that he overlooks the advantages of independent connection with some of the railway systems of Mexico. Possibly he may, with his great system and influential capital, make combination with the Higgins syndicate, so as to compass the completion of a railway line from some one of the harbors upon the Pacific coast of Mexico to El Paso. It is not impossible that he and Mr. Dodge may be brought together, so that Dodge and his partners will be able to market the rich copper ores which they possess in Northern Sonora and Mr. Cable and his railway enjoy the profitable traffic which the working of these mines would secure.

"All this, however, is in the air. Nobody can tell definitely what is to be done or how Northwestern Mexico is to be so conquered by railway approaches that its tremendous resources may be brought to the markets. It cannot be conquered without at the same time securing the shortest of all possible transcontinental lines that will bring the South and all its industries and agriculture into the quickest commercial communication with Honolulu, the Philippines, Japan and Asia.

"It should be said that the Japanese shipowners would be rejoiced if the harbor were to be established at Topolobampo, because then they would be able to make a stop at Honolulu when on their way between Japan and the United States. They cannot now stop at Honolulu for traffic purposes and then make harbor in any port within the jurisdiction of the United States; our laws prohibit that. But if they are able to make port at Topolobampo, only 600 miles from El Paso, then they would also be permitted to stop at Honolulu, and that is something absolutely essential for the great ships with which the Japanese propose to conduct their American trade."

### The Brunswick & Birmingham.

A recent official statement relative to the Brunswick & Birmingham Railroad is to the effect that thirty miles have been graded and track laid upon five miles on the Brunswick end of the line. The company has also secured three locomotives



and a quantity of freight cars, as well as five passenger coaches. It is expected to begin operation of trains over the portion of the line completed in the near future.

### ABSORPTION OF RAILROADS.

#### The Views of Ex-Senator Davis of West Virginia.

[George Alfred Townsend in Pittsburg Dispatch.]

I asked Henry Davis, ex-senator of West Virginia and father-in-law of Stephen Elkins, a present senator, what were the facts about the railroads.

"The Pennsylvania Railroad unquestionably has control of the Baltimore & Ohio, although Mr. Cowen, the president, has a contract of which about three years are yet to run. He will work amicably with the new dominant interest. Although the Pennsylvania is in control, the financial victory is on the side of the bankers who reorganized the Baltimore & Ohio. They have forced the situation, and their loans and investments come up to the high figures of the stock, which sells at 92, and was only 11 before they retired the old stock, while the 4 per cent. bonds are 105. This is a triumph of banking speculation, which has come to be master of mere brokers' speculation. Kuhn, Loeb & Co. have played right into the times more than once, and Morgan has had to follow them.

"The great factor in the acquisition of the Baltimore & Ohio has been Pittsburg, which has more tonnage than any other American city, owing to its heavy production and raw materials. To hold Pittsburg has been the problem all along. No other railroad than the Pennsylvania went in there but the Baltimore & Ohio, and the latter was so poor and unprovided with rolling stock and behind in its curves and grades that for thirty years it could only compete sorrowfully, and finally, about fourteen years ago, it became embarrassed and dividends stopped. Under President Mayer there was little improvement. The road's attorney, John K. Cowen, came in as president in 1895, and he brushed away the illusions of an undividable surplus, etc., and became receiver with a practical railroad man, Mr. Murray. They now had all the road could make, under protection of the United States Courts, to raise it to first-class. They took out the curves, bought cars and engines and made rates to suit their conditions, and lifted the main line from Wheeling into Pittsburg and its Ohio suburbs. Poverty had made of an over-vaunted property a fine new tool. The next step was to find somebody to believe in that tool."

"Why not Mr. Morgan?"

"Mr. Morgan had voluntarily advanced \$10,000,000 to the Baltimore & Ohio when it first failed. Finding its alleged surplus of \$48,000,000 to be a profit and loss of \$2,000,000, Mr. Morgan demanded a blanket mortgage covering the whole property. The skill of Cowen to interest some of the great Chicago shippers who had felt the new vigor of the plant, and also to interest that clientele of bankers who had carried off the Union Pacific Railroad from Morgan and the government, lifted the whole of Morgan's mortgage. Among the active negotiators was another attorney, E. R. Bacon, who had been a good deal in London. A new mortgage of \$260,000,000 left the company a large line of bonds to sell slowly for wholesale improvements. About \$81,000,000 in stock were issued. As at present selling the Baltimore & Ohio Company has \$340,000,000 of value instead of some \$16,000,000 in stock and an uncertain and illusory debt as formerly. It had been a bad instance of ostentatious economy de-

ceiving itself and others. Now, it had its own bankers, who were in the light of its guardians. It entered the coke fields, and it built through Pittsburg. Mr. Carnegie had intended to buy it. He was the greatest shipper on the continent. He could, if he had desired, have preceded Morgan in the steel combination."

"Then Carnegie forced all this trust system?"

"He was restive about his freights. He threatened to go out to the lakes and build tube works and establish Canadian and canal connections to the seaboard. He did coquette with the Baltimore & Ohio controllers. The Pennsylvania discovered that they had a parallel rival from Chicago and St. Louis through Pittsburg to the seaboard, up to the twentieth-century mark for efficiency, and the public trending toward the Baltimore & Ohio securities. Mr. Cassatt, now the president of the Pennsylvania, had been its most conservative director. For a long time he resisted taking in the New Jersey lines. But now the country was full of money panting for investment, and to act must be to act at once. So Carnegie was bought out and the Baltimore & Ohio was acquired by the Pennsylvania."

"What will be some of the results?"

"Washington city will probably be reduced to one railroad depot and one viaduct instead of two. Four lines from the South have been united to buy the old Fredericksburg road. Then there is the Southern; also the Chesapeake & Ohio. They will all want to come into the new depot. We, that is, the West Virginia Central, also expect to go to Alexandria, Va., from Harrisonburg up the valley."

"What is to secure returns upon this extended capitalization and debt, when but recently the entire railroad system seemed in distress?"

"Activity and confidence and better prices are the three things to depend upon. Money, as I have said, is most abundant. We get a little better for coal, but the price of steel rails is moderate. I paid \$26 at Sparrow's Point yesterday for 6000 tons of steel rails, with a proviso that if the price fell before delivery it was to be reduced to me."

"Why did you not go to the Carnegie mills?"

"It was a matter of the hardness and endurance of the steel. Rails I bought in 1886 have outlasted rails of the same weight bought in 1893; in rolling the rails is a care and a knowledge not uniform in all the mills. The curved rails crush under the heavy locomotives where not annealed with care."

"So the steel trust will not control every mill?"

"No. The Steelton mills are not in the trust, and they are of a high efficiency."

"May not the steel mills left out unite?"

"I do not think the new steel trust wants to provoke a war of steel. It seems to me that the trust will be moderate, and aim to do good work with expedition."

"Will the Western Maryland Railroad be a thorn in the side of the combination?"

"Hardly. The necessity of buying it is over, as the three railroads which might have competed for it now agree. That road was always withdrawn when it had a bidder, and always pressed for sale when it had none, a result of municipal ownership. New York has become the common exchange of all the large men of every city. There is Mr. Cassatt, who now goes twice a week to his New York office, although he long resisted buying the New York lines."

"Do you anticipate new railroads?"

"Not now. The stability of these large recapitalizations is to be tested. Some predict a too-heaviness. There may be a

continuous strain of monetizing higher, which will snap sometime. There are many smaller roads not in the combinations, but not at variance with them. Our West Virginia road is now 127 miles long, spanning from the Baltimore & Ohio to the Chesapeake & Ohio, and with separate communication to the Ohio river. We have 90,000 acres of coal, coke coal, iron and timber and 700 coke ovens. Our stock is \$10,000,000; our debt \$4,000,000. We sell our securities slowly for development. Three of us own 92 per cent. of the road. Harrison, Blaine, Bayard, Gorman and a few others own the rest of the 8 per cent. We earn some money, have a New York office, live on good terms with our powerful co-carriers, and till oppressed shall continue to keep step with what proves wise. The example of Morgan, the Vanderbilts and the Pennsylvania Railroad is concession and peace. The good sense of quarrelling is not much trusted now."

### Extensive Land Purchase.

It is announced that stockholders in the New Orleans, Natchez & Arkansas Railway Co., which proposes building a line between Vidalia and Lake Providence, La., have purchased 300,000 acres of land in Concordia parish, through which the railroad has been surveyed, and have formed the Iowa & Louisiana Co., Ltd., with A. T. Averill of Cedar Rapids, Iowa, president, and Howard Cole of Vicksburg, Miss., general manager. It is understood that Northern settlers will be located upon the land.

Further details from the plans of the promoters are given in a letter to the Manufacturers' Record from Mr. A. T. Averill, in which he states that a construction company has been organized with sufficient capital to build the railroad ready for tracklaying. It is expected to make extensions into Arkansas after completing the road to Lake Providence. The land which has been purchased is controlled by the Louisiana & Arkansas Development & Construction Co., and Mr. Averill states is especially adapted to cotton and rice culture. It is expected to sell the timber to millmen and the land for farming purposes.

### Important Development Project.

According to a dispatch from Augusta, Ga., Mr. James U. Jackson has become interested in the plan to build an electric railroad between Augusta and Aiken, S. C., a distance of fifteen miles. Mr. Jackson, it is understood, has been negotiating with several Northern parties, including Alfred S. Elliott of Wilmington, Del. It is stated that surveys for the line are to be made in the near future, also estimates for a large power-house, which will be constructed in the suburbs of Augusta. What is to be known as the North Augusta Electric & Improvement Co. is to be organized to build the power-house and to construct systems of sewerage and water-works in North Augusta. The plan includes the issuing of \$1,000,000 in bonds, \$500,000 preferred stock and \$1,000,000 in common stock.

### Another Electric Project.

An elaborate plan to complete an electric railroad system between Washington and Philadelphia has been made public. It is understood that for the last year representatives of a Western syndicate have been perfecting details and securing estimates of the cost, etc. Several of the parties reported as interested in the project are well known in connection with financial affairs. They include the Lamprecht Bros. Co. of Cleveland, Ohio, of which W. H. Lamprecht is president, and F. N. Wilcox and James Christy, Jr., of

Cleveland. It is stated that the Western syndicate is in a position to finance the undertaking to the extent of \$1,500,000. Messrs. George R. Willis and D. M. Ludington of Baltimore are also associated with the plan.

### West Virginia Coal.

Arrangements are being made to develop another large tract of coal land in West Virginia by the New York & West Virginia Coal Co. The property comprises about 12,000 acres in Monongalia county, and surveys have been made for a railroad which will extend through it and connect with the Baltimore & Ohio. Mr. James P. Gaffney, chief engineer of the promoting company, writes the Manufacturers' Record that James A. Milholland of Cumberland, Md., and others interested in the George's Creek & Cumberland Railroad are owners of the tract, and it is expected to begin mining operations in the near future.

### Another Extension.

The report recently published in the Manufacturers' Record that the St. Louis & San Francisco Railroad Co. would extend from Sherman to Fort Worth is confirmed in a letter from Mr. B. F. Yoakum, president and general manager of the company. Mr. Yoakum writes that connection will be made at Fort Worth with the Fort Worth & Rio Grande Railroad, which is to be extended from Brownwood, Texas, to a point in San Saba or McCulloch county. The extension of the Fort Worth & Rio Grande will be about fifty miles in length.

### Savannah's Union Station.

Arrangements are being made to build the Union Station at Savannah, Ga., and it is understood that bids for its construction will be received on April 5. Plans and specifications are now in the hands of several contractors. In connection with the depot, about twelve miles of track will be needed, and a contract for constructing this has been awarded to Messrs. W. J. Oliver & Co. of Langley, S. C. The depot will be used by the principal railways entering the city. W. W. Mackall is president of the terminal company, and Mr. Frank S. Gannon, vice-president.

### To Extend to Hattiesburg.

Messrs. C. D. Smith & Co. of Birmingham, Ala., announce that they have secured a contract to extend the Mobile, Jackson & Kansas City Railroad forty-five miles from its present terminus, Merrill, Miss., to a connection with the Gulf & Ship Island Railroad at Hattiesburg.

### Railroad Notes.

Mr. H. F. McGregor of Houston, Texas, has purchased the Houston Suburban Street Railway, acting, it is understood, for bondholders of the line.

The St. Louis Car Co. of St. Louis, Mo., has contracted with the Metropolitan Street Railway Co. of Kansas City to furnish the company fifty cars for its extensions now being built.

The title of the New Orleans & Western Railroad has been changed to the New Orleans Belt & Terminal Railroad. It is reported that this line will be utilized by the Southern Railway Co. with the property at Port Chalmette for terminals on the Mississippi river.

The yield of the sponge fisheries of Florida in 1900 was 364,990 pounds, valued at \$567,685. There were employed in the business 2245 men, 156 vessels with a tonnage of 1750, and 228 small boats.

## LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

### LUMBER MARKET REVIEWS.

#### Baltimore.

Office Manufacturers' Record,  
Baltimore, Md., April 10.

The movement of lumber in the local market during the past week has been slightly improved, and, although there is very little activity in some channels, still a fair volume of business has been recorded. Manufacturers generally do not look for increased activity in trade for several weeks to come, when the demand will have reached greater proportions. Under conditions prevailing the market is in fair shape, and lumber moving more freely as the season advances. Receipts of North Carolina pine continue liberal, and the market is very steady, with a slight advance on the better grades, which are becoming scarce, while lower grades are barely steady. Box grades are in good supply, but the demand is not so decided, on account of the unsettled state of the market, boxmakers buying very sparingly until affairs of the tin-can trust are definitely settled. White pine is in fair demand, and prices firm, with stocks ample for present requirements. Cypress and hemlock are moving slowly, but prices are generally well maintained. In the hardwood trade there is considerable improvement, and the demand, especially from out-of-town buyers, is active. Oak, poplar and ash are selling freely, with prices firm and dry stocks of poplar much lighter. Local wagon and furniture factories are purchasing more liberally, and altogether hardwoods show marked improvement. The foreign hardwood shipments show very little activity, and the export business is quiet.

#### Savannah.

[From our own Correspondent.]  
Savannah, Ga., April 8.

A steady and substantial trade in nearly every avenue of the lumber industry of Southern Georgia has been the rule during the past week, and while no unusual activity prevails at this port, the volume of trade is above the average for this period of the season. The demand from Northern and Eastern markets is becoming more and more pronounced as the season in those sections becomes more favorable for building operations. At all milling sections there is considerable activity, mills generally having all the orders they can handle. Stocks of lumber are by no means large, and the output is generally shipped as quick as it leaves the saw. Prices continue very steady for desirable grades of lumber at \$10 to \$10.50 for minimum easy size yard stock; car sills, \$12; stock 14x16 inches, depending on length, \$13 to \$15; ship stock, \$16; sawn ties, \$8 per 1000 feet, and hewn ties, 25 cents each. At nearby ports there is a good business in progress, and from Brunswick shipments of lumber and crossties are better than in March. There is a good foreign demand for lumber, and Brunswick shippers have received some good orders during the past week. Lumber freights continue steady, with charters closed as follows: Schooner Ida C. Southard, 718 tons, Brunswick to New York with lumber at \$4.70; schooner Jennie E. Richter, 565 tons, Savannah to Baltimore with lumber at \$4.25; schooner Harold C. Bucher, Brunswick to Providence with lumber at \$5, and schooner Mary E. Bradshaw, Savannah to Philadelphia with lumber on private terms. The Georgia Saw-Mill Association will hold its regular monthly meeting in Val-

dosta on the 9th inst., when the session promises to be very interesting. Price-lists, freight conditions and other matters relating to the industry in South Georgia will be considered.

#### Pensacola.

[From our own Correspondent.]  
Pensacola, Fla., April 8.

The record of business at this port for the month of March was not quite up to that of February. Shipments to twenty-six foreign ports, amounting to \$905,100, were made during the month. During the month there were entered eighteen steamships of a total tonnage of 28,004, and forty-nine sailing vessels of an aggregate tonnage of 47,832. There cleared during the month twenty steamships of an aggregate tonnage of 30,330, and sixteen sailing vessels of a total tonnage of 14,228. The timber and lumber trade during March was fairly active, with more than an average volume of business. The shipments of timber and lumber amounted to 27,162,654 feet, oak staves 77,212 pieces, oak lumber 80,000 square feet, and ash logs 456. Stocks of timber are considerably reduced, owing to some heavy shipments, with receipts at the moment very light. Prices at Ferry Pass are a shade firmer, with indications of an advance. The demand for lumber from the usual sources is good, and some large orders have been received from South America during the past week. The Cuban trade is improving, and a good demand during the season is expected from the various ports on that island. A large amount of lumber is going into consumption for local building purposes, the progress of this port in the matter of improvements being quite pronounced. Stores, private residences, warehouses and a number of new industries are being erected and established here, and the port's development during the present year will likely be much greater than that of last year. There is very little change in the freight market on timber and lumber. Messrs. Fred O. Howe & Co. in their Gulfport freight circular for March give the following tone to the market: "Pitch-pine freights remain about the same as last advised, being still excessively dull, with hardly any demand. We quote £5 7s. 6d. to £5 12s. 6d. United Kingdom or Continent; £5 to £5 2s. 6d. Mediterranean. There has been considerable activity in chartering for South America, and freights for that direction are quite firm at \$14 Buenos Ayres; \$14 to \$14.25 Rio. Steam freights continue dull at £4 17s. 6d. to £5 5s., according to port."

#### Mobile.

[From our own Correspondent.]  
Mobile, Ala., April 8.

Considerable activity has characterized the local lumber and timber market during the past week, and the volume of business has shown more expansion. The local timber market is firmer, with stocks of sawn timber very light at all Gulf mills. Sawn timber is now quoted at 11 to 11½ cents per cubic foot, 40-foot basis. Cypress logs are in good demand at 8 to 12½ cents per cubic foot, poplar logs \$6 to \$8 per 1000 feet and oak logs \$8 to \$12. Cottonwood is quoted at \$4 to \$5 per 1000 feet. Hewn timber when placed upon the market will bring 13 to 14 cents per cubic foot, and hewn oak is in limited demand at 15 to 18 cents per cubic foot, while hewn poplar is selling at 13 to 13½ cents. Shipments of hewn timber for the week amounted to 64,007 cubic feet, and of sawn timber 202,740 cubic feet, all to United Kingdom and continental ports. The situation in all lines of the lumber trade is of a very promising character, and the prime grades and heart-face strips

are firm and advancing; in fact, throughout the general list there is a much better tone to values. The demand from continental ports of Europe is active, some large shipments having gone forward during the week, notably one of 1,500,000 feet for Rotterdam. There is more demand from Central and South America, and from Cuban ports. The total shipments of lumber during the past week amounted to 2,813,305 feet, and for the season 64,751,422 feet. Saw-mills in this section are all busy, and some have more orders than they can handle at the moment. It is almost impossible to get lumber and timber to load vessels awaiting cargoes, and there are now more vessels in the harbor than at any time since the season opened.

#### Memphis.

[From our own Correspondent.]  
Memphis, Tenn., April 8.

While the first week of April has failed to come up to the general expectations of the hardwood lumbermen of the Memphis district, there has been a good average volume of business, with marked activity noticeable in some lines. Some of the largest houses here reported for the week an especially active demand from the West, more orders being placed in that section than ever before in the history of the trade at this season. The demand for some of the leading woods was brisk, with some few orders unacceptable on account of the inability of the millmen to fill the specific requirements of the bidders. The demand from the East has been only moderate. The demand from the Continent and from England also has shown some improvement over the business of the past few weeks. The feature of the demand from exporters has been the excellent call for sweet gum, oak and poplar, large shipments of these woods having gone forward during the week, with inquiries numerous enough to show that there are still good things in store for the manufacturer of this stuff. In the domestic trade there have been large shipments of Arkansas cypress, the demand for this from the manufacturers of doors, sash, blinds, etc., being as large as the small stocks on hand, which amount to 1,500,000 to 2,000,000 feet, would allow. One of the largest mills here reported the sale of its entire output of this wood for the next six months, and stated that orders were being turned down freely for lack of material. Stocks of other leading woods are fairly large, with the exception of plain red oak, which is the scarcest of the leading woods here, as a result of the fact that the millmen here claim that they do not find any profit in cutting it, and that the country mills in this district seem to pay no attention to this particular much-wanted stuff. The price situation, as a rule, is getting stiffer all the while. Most of the weak holders, who were forced to follow the decline in progress during the closing months of last year and the opening ones of the present year, have been shaken out, thus leaving the situation in strong hands. The dealers are making no concessions whatever in prices, so confident are they of the strong position they occupy. They are approaching the busy season, and they feel that if they were able to maintain prices during the period of depression they certainly ought to do so now, and they are showing a uniform disposition in this direction. The strongest wood on the list is plain red oak, which is selling close up to plain white on account of its scarcity. Cypress is also especially stiff, while ash, poplar, quartered white oak and gum display a pretty strong undertone. The log supply is fairly good now, the river mills having plenty of stock for some time to come.

The rail mills are short to some extent, but with the return of warmer weather and the drying out of the bottoms the supply situation will right itself about. The river mills are counting upon more high water. If this comes they will be well fixed. If it does not the tables will be turned and the rail mills will be in the better position. The mills are all running on full time, with a few isolated exceptions, and the situation is altogether encouraging. The manufacturers are watching with interest the steadily-strengthening position of iron and steel, and feel sure that so long as this barometer of trade conditions indicates such a healthy situation there is no reason why there should be any depression either in the movement or in the value of the output of their mills. The local trade is good, with prices firm all around. Contracts are being let freely, and trade conditions are very satisfactory to the retailers.

#### Beaumont.

[From our own Correspondent.]  
Beaumont, Texas, April 6.

Never before in the history of the lumber-manufacturing business has there been as much business offered to the mills as has been the case recently. The Texas dealers are buying largely, and, as the demand is noticeably for the better grades, it is inferred that the trade is principally emanating from the city business. This view is also supported by the accounts in the daily press of the remarkable amount of building going on all over the State. The dealers are not able to accumulate a stock of normal magnitude, nor are the mills able to give it to them. Mill stocks with long-leaf mills are lower than they have been, in proportion to capacity, for many years. Today there are on hand about 130,000,000 feet at the mills, against over 300,000,000 September 1, 1900. This is continually being reduced. Each month shows a shortage, whereas it is generally the case that the spring months evidence increasing stocks. The Western trade is equally good. Numerous buyers direct from the centers of Western trade, such as Omaha, Kansas City and St. Louis, have been visiting the mills in this vicinity during the last two weeks endeavoring to make contracts for fifty to one hundred cars for future delivery. Very little success has rewarded their efforts. The stock is not here to sell them. The timber trade is even more vigorous than is the yard business. The demand for heart ties has reached its zenith, not because all the enquiries or orders are in, but because it is a physical impossibility for mills to furnish any heart ties for three months.

#### Lumber Notes.

A fire broke out in the planing-mill plant of Fore & Foster of Wilmington, N. C., last week, practically destroying two dry-kilns and six or eight cars of lumber. The loss is estimated at \$2500, with no insurance.

A charter has been issued to the Youngblood Lumber Co. of Aiken county, South Carolina. The company proposes organizing a lumber, sash, door and blind factory at North Augusta, in Aiken county, with a capital stock of \$20,000.

The shipments of various wood products from the port of Pensacola for the month of March are reported as follows: Timber and lumber, 27,162,654 square feet; oak staves, 77,212 pieces; oak lumber, 80,000 square feet, and 456 ash logs.

The Houston Lumber Co. of Chicago has secured an option on seventy acres of land near the fair grounds at Vicksburg, Miss., on which it is proposed by the company to establish a plant for the manufacture



ture of all grades of lumber, including hardwoods.

The Beaumont Lumber Co. and the Nona Mills Co. of Beaumont, Texas, shipped during the month of March 8,835,978 feet of lumber. This, it is said, is by no means a record-breaker, but demonstrates the activity in lumber prevailing in that section.

The shipments of lumber from the port of Mobile, Ala., for the week ending the 5th inst. amounted to 2,813,305 superficial feet, and for the season 64,751,422 feet. Shipments of hewn timber for the week were 64,607 cubic feet, and of sawn timber 202,740 cubic feet.

Over 2,000,000 feet of logs reached Chattanooga in one day last week, of which Loomis & Hart received 800,000 feet, the rest going to Snodgrass & Field, F. W. Blair, National Boat Oar Co., Ferd Bremer Lumber Co., Chattanooga Lumber Co. and Central Manufacturing Co.

The flood in the Little Kanawha, West Virginia, commenced to subside on the 3d inst., and the river was falling above and was about stationary at Parkersburg. It is estimated that from 12,000 to 20,000 logs and 175,000 ties were carried out into the Ohio, most of which will be recovered.

The Babcock Lumber Co. of Boykin, Miller county, Georgia, has been incorporated, with a capital stock of \$100,000. The incorporators are E. V. Babcock, F. R. Babcock, C. L. Babcock and O. H. Babcock of Pittsburg, Pa., and W. A. Wheeler and E. H. Hammond of Bainbridge, Ga.

Chichester and Otto Hance, representatives of a large Eastern pencil manufactory, were in Knoxville, Tenn., last week looking at sites for a large pencil-timber mill, which it is proposed to erect in that city. The mill will be for converting cedar timber into small stock to be shipped to the Eastern factories.

The scarcity of walnut is shown in the large supply of walnut stumps and roots for shipment lying at railroad stations in Putnam county, Tennessee. Buyers are hunting for old stumps of walnut in different sections of the State from which walnut trees have been cut for years, which are being marketed at a good price.

A cross-arm factory for the manufacture of cross-arms for telephone and electric-light poles has been established at Meridian, Miss., by J. M. Brownlee, J. H. Kittermaster and W. C. Fulvoe. In addition to the factory, there will be a dry-kiln, office and power plant. The factory expects to begin active operations about May 1.

Mr. H. B. Aden of the firm of Aden & Johnson of Memphis, Tenn., purchased last week at Vicksburg, Miss., 29,000 acres of fine timber land. It is located near the Mississippi river in Adams county, and is said to contain not less than 100,000,000 feet of timber, much of it cypress of high grade and cottonwood and hardwoods.

It is stated that the Panther Lumber Co., the Knox Lumber Co. and the Ritter Lumber Co., three of the largest lumber concerns in Southern West Virginia, have consolidated under the firm name of the Ritter Lumber Co., with a capital of \$1,500,000. The concern will operate mainly in McDowell county, with Welch as headquarters.

The J. A. Favre Lumber Co. of Pearlman, Miss., organized on the 4th inst. under its charter, with a paid-up capital stock of \$100,000, to be increased to \$200,000. The following officers were elected by the directors: J. A. Favre, president and general manager; J. J. Favre, vice-president; Simon Favre, sec-

retary and auditor, and William Rudolf, treasurer. The new plant, which will be completed about June 1, will have a capacity of 75,000 feet of lumber per day.

It is stated that L. C. Gracy, an extensive land-owner of High Springs, Fla., will shortly have in operation at that place one of the largest saw-mills in that section. A sash, door and blind factory will be run in connection with the saw-mill. Mr. Gracy has made a contract with the Plant system to furnish ten carloads of logs per day.

The planing mill of Alexander Gilmer at Orange, Texas, was entirely destroyed by fire on the 4th inst., together with 600,000 feet of dressed lumber in sheds and about 100,000 feet on the yard. The mill was valued at \$35,000, and the loss on lumber is \$10,000 more. The mill was insured for \$13,000, and the lumber fully covered by insurance.

The quarter ending March 31 at Orange, Texas, has been remarkable for its activity in lumber shipments. The mills of Orange made the following shipments during the quarter: January, 1135 cars, containing 16,533,603 feet; February, 1047 cars of 16,718,033 feet; March, 1158 cars of 18,332,208 feet, making a total of 51,583,844 feet for the quarter.

Gen. J. A. Holley and associates, who recently purchased the interest of Judge Lucas and others in the tract of land known as the Fork Creek tract, in Boone county, West Virginia, have just completed a deal by the purchase from Major Thos. L. Brown of the timber on his portion of the tract, with the right of way necessary for removing the same. General Holley and party have now one of the finest bodies of virgin forest in the State, which will be at once vigorously developed.

Capitalists of Philadelphia, Clearfield and Williamsport, Pa., have closed deals for 50,000 acres of mountain timber lands situated in Blount county, Tennessee, along the headwaters of Little river. The purpose is to begin the development of this property by the construction of a branch railway thirteen miles in length, and when this is completed to erect saw-mills and woodworking plants in Millers and Tuckaleechee coves. This timber tract is said to be one of the choicest in the Appalachian district, containing every variety of soft and hard woods.

The forestry division, Department of Agriculture, at Washington, D. C., is preparing a working plan for the conservation of timber on a tract of 300,000 acres of land near Millinocket, Maine, belonging to a private corporation. The private concern will pay all expense of the work save the salaries of the government experts, who are directed by Prof. Gifford Pinchot, chief of the division. The division of forestry in a circular just issued renews its announcement that it is prepared, "so far as its limited appropriation will permit, to render practical and personal assistance to farmers and others by co-operating with them to establish forest plantations, wood lots, shelter belts and wind-breaks."

A dispatch from Memphis, Tenn., states that the manufacture of macaroni is to be conducted on an extensive scale in that city, and that it will be the principal distributing point for the product in the South and Southwest. A company of Italian business men has been organized, and a plant which has been in operation in Italy will be removed to Memphis. The company includes L. Solari and Paul Lenzi.

A dispatch from New Orleans states that Louisiana sugar planters will experiment with Texas oil for fuel.

## PHOSPHATES.

### Phosphate Markets.

Office Manufacturers' Record,  
Baltimore, Md., April 10.

The local phosphate market has ruled quiet during the past week, and manufacturers of fertilizers are not purchasing to any extent. Prices for Tennessee and Florida rock are firm. Sales of South Carolina rock are reported at current figures. The following charters are reported for the week: Schooner David P. Davis, Baltimore to Havana with coal and back from Port Tampa with phosphate rock on private terms; schooner Major Pickands, 873 tons, from Port Tampa to Weymouth with phosphate rock at \$2, and a Spanish steamer, 1274 tons, from Fernandina to United Kingdom or Continent with phosphate rock on private terms. In the several phosphate sections in the South business is fairly active, and as the season advances shipments are becoming greater. In the Florida section miners are generally working their plants to the best possible advantage; a number are, however, closed down until business revives. Land rock is being freely shipped from the ports, and pebble phosphate is in good demand, with holders firm. The South Carolina market is quiet, with the output considerably reduced, very few companies operating on account of lack of demand and low values. In the Tennessee phosphate field the movement is said to be very satisfactory, the demand for both domestic and foreign rock being quite active. For the quarter ending March 31 over 100,000 tons have been sold at Mt. Pleasant, and in comparison with business a year ago these figures show an increased volume. Holders of rock at Mt. Pleasant are firm in their views, as no figures below the market are accepted. Quotations range as follows: 70 per cent. rock \$2.15 to \$2.25, 75 per cent. \$2.75 to \$3 and 78 per cent. domestic \$3.25, and for export \$3.50.

### Fertilizer Ingredients.

The ammoniate market has ruled quiet during the past week, but the market is strong, with stocks in the West reported light. Sales during the week have not been as large as usual, but there is considerable inquiry from Eastern and Southern sources.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)....	\$2 67 1/2 @ 2 70
Nitrate of soda, spot Balto....	2 00 @ 2 10
N. York. 1 85 @ —	
Blood .....	2 42 1/2 @ 2 45
Azotine (beef).....	2 47 1/2 @ 2 50
Azotine (pork).....	2 47 1/2 @ 2 50
Tankage (concentrated).....	2 37 1/2 @ —
Tankage (9 and 20).....	2 40 @ 10
Tankage (7 and 30).....	21 00 @ 21 50
Fish (dry).....	27 50 @ 30 00

### Phosphate and Fertilizer Notes.

From the year 1888 to the close of the year 1900, a period of thirteen years, it is estimated that 5,524,708 tons of phosphate rock have been shipped from the ports of Florida.

The sale of fertilizer tags from the State department at Montgomery, Ala., for the season of 1900-1901 amounts to 1,884,650, equal to 188,465 tons of fertilizers. During the season of 1899-1900 there were sold 1,464,747, equal to 146,474 tons.

The shipments of high-grade Florida phosphate rock from the port of Savannah, Ga., for the month of March, as reported by J. M. Lang & Co., amounted to 12,059 tons; previously reported 26,492 tons, making a total for the three months ending March 31 of 38,551 tons.

It is reported that William Graves and Charles R. Flint of New York have acquired an interest in the phosphate deposits in the Steinhatchie section of La-

fayette county, Florida. These deposits are reported by experts to be among the richest and most extensive in the State.

The Potomac Fertilizer Co. of Cumberland, Md., has been incorporated, with a capital stock of \$20,000. The incorporators are George D. Landwehr, W. J. McCarty, Daniel Houck, George W. Saider and A. A. Wilson of Cumberland. The principal office and factory will be located in Cumberland.

The barge Carrie L. Tyler cleared last week from Charleston, S. C., for Wilmington, N. C., with 600 tons of phosphate rock, and the schooner Mary Curtis for Baltimore with 539 tons. The total domestic shipments of phosphate rock from Charleston since September 1, 1900, is estimated at 22,263 tons.

Prof. W. F. Hand, Mississippi State chemist, has issued the semi-annual bulletin on fertilizers sold in Mississippi. The bulletin contains the analysis of 140 brands manufactured in the various Southern States, notably Louisiana, Alabama, Georgia, North and South Carolina and Virginia, in addition to the various home enterprises.

The directors of the Jackson Fertilizer Co. of Jackson, Miss., have awarded the contract for their new factory to Mr. N. P. Pratt of Atlanta, Ga., who will begin work at once. The company will own its own water and lighting plants, and the plant will be in every respect well equipped. The factory is expected to be ready for operations by the 1st of September next.

In reviewing the market for phosphate rock the Mt. Pleasant (Tenn.) Chronicle says: "For the first three months of 1901 over 120,000 tons of phosphate rock in this field has been sold. The market is growing stronger each day, and advanced prices are being offered. Tennessee miners could easily sell 100,000 tons more if they would come to the prices offered. As this rock, and more, must come from the Mt. Pleasant field, the indications are that our miners will have a very busy year."

The Standard Fertilizer & Manufacturing Co. is preparing to erect a Brainite slag fertilizer factory at Birmingham. The plant is to have a battery of twenty-six Griffith mills, three dryers and three pool and hot mixers, all driven by a 2000-horse-power E. P. Allis tandem compound engine. The company will also erect two acid chambers to make sulphuric and phosphoric acid. The Birmingham plant will be the first of a number to be erected by the company at different points in the country.

### New Coastwise Vessels.

The steamship Denver, being built for the Mallory Line by the Harlan & Hollingsworth Company of Wilmington, Del., has been successfully launched at the yards. The Denver is 386 feet in length, 48 feet beam, and has accommodations for about 150 first and second class passengers. She will be placed in service between New York and Galveston, Texas.

Contracts for the two steamships to be built for the Old Dominion Line have been awarded to the William R. Trigg Shipbuilding Co. and the Harlan & Hollingsworth Company of Wilmington. The vessels will be of the same size, with accommodations for seventy-five passengers in addition to cargo capacity. They are to be completed within the next twelve months.

Receipts of lumber at New Orleans for the week ending April 5 amounted to 2,519,000 feet, and for the season to 82,856,321 feet, against 65,153,652 feet last year.

## MECHANICAL.

### Universal Milling Machines.

The Garvin Machine Co., Spring, corner Varick street, New York, has recently added several improvements to its milling machines, and we herewith present an illustration of its latest type of universal milling machines, which are most commonly used for general toolroom and manufacturing work. These machines are of graceful design; the parts are well proportioned, and the material and work-

slack in the feed-belt, is an example of simplicity and efficiency. An arm having a circular base carries a stud in which the cone-pulley shaft revolves, thereby relieving the shaft from all strain whatever. On the circular base is a downwardly-pending arm engaged by adjusting screws passing through lugs on the back of the column. By properly manipulating these screws the pending arm is moved to the right or left, and thereby also the cone-pulley upon the other end of the bracket.

The machines are provided with universal dividing heads for spur and bevel gear-

tion, photos and prices the manufacturers may be addressed as above.

### Single-Wheel Tool Grinders.

The accompanying illustration gives an excellent idea of the special features of the Nos. 1, 2 and 3 single-wheel tool-grinding machines placed on the market by the Diamond Machine Co. of Providence, R. I.

These tool-grinding machines have easily accessible tanks inside of column. A patented arrangement draws the water by siphon from the upper to the lower tank. This arrangement, by drawing the water from below the surface and above the bottom of the pan, furnishes the pump with water free from sediment. It is patented, owned and used by this company only.

The water is distributed on the wheel directly in front of the work. On the inside of the hood a raised surface is cast, which leads all spray or water from the inside of the hood to the column, keeping it entirely from the spindle and boxes. The collars, steel spindles, pulleys and all

plants have been installed for the treatment of anchors, sheet iron, telegraph supplies, I beams and other large work.

The cold process, as it is called, or properly, the Electro Deposition of Zinc, is in its infancy, but the field is so large, the results so superior in finish and the difference in cost so attractive that the attention of progressive men is being given to the furtherance of experiments, and a number of the leading hardware houses are operating experimental plants.

The plant required for the new process consists of a compound-wound plating dynamo of sufficient ampere capacity to turn out the necessary work per day of eight to twelve runs, the amperage required per square foot of work exposed to the action of the bath varying from seven and one-half amperes to ten amperes, according to the density of the solution. Then will follow solution tanks for the work of size suitable for the required daily output. Tanks for cold and hot water sufficiently large to immerse the largest piece of work, as well as vats for pickling acid of same size, are also re-

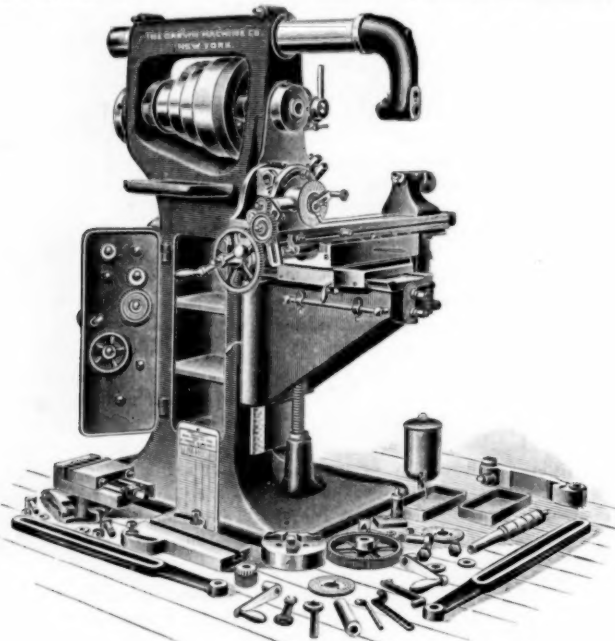


FIG. 1.—No. 1 UNIVERSAL MILLING MACHINE.

manship are the best obtainable. The column or frame has large bearing surfaces for the knee, and is very strongly built at the top for the spindle and sliding arm. The bearing for the spindle, of which we show an illustration, has a taper of five degrees, and the thrust is taken in either direction by a hardened and ground washer on each side of the collar of the spindle. A soft-steel washer is provided, that may be taken out and faced off in a lathe to compensate for wear. A large cap holds the spindle back to its seat and thoroughly protects the bearings. This arrangement preserves perfect alignment of the spindle.

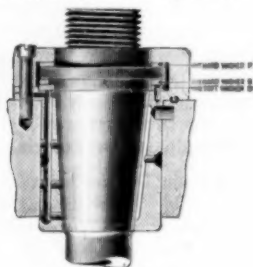


FIG. 2.

The in-and-out feeds of the table-pan upon the knee are self-acting, and are engaged and disengaged by a clutch-sleeve movable upon the projecting portions of the shafts operating these in-and-out feeds. There is but one of these clutch-sleeves, which is used upon either of the two shafts, so that at no time both the in-and-out and the up-and-down feeds can be simultaneously thrown into operation.

The table is self-feeding, and has adjustable trip-stop. It is very wide, and has a long bearing upon the pan. It can be swiveled upon the graduated pan to an angle of 45 degrees either way from the normally straight position for spiral and other milling. The feed-cone bracket shown in the illustration, for taking up

cutting and spiral milling, etc. The tail-stock is of the elevating and inclining style for taper grooving of reamers, etc., and is a very efficient construction.

A very peculiar and thoroughly novel feature of these milling machines is the mechanism for changing the feeds, which, unfortunately, cannot be seen in the illustration, the device being on the opposite side of the column. A notched dial carries mechanism which instantly changes the feed very much on the plan of the Norton device used on several makes of

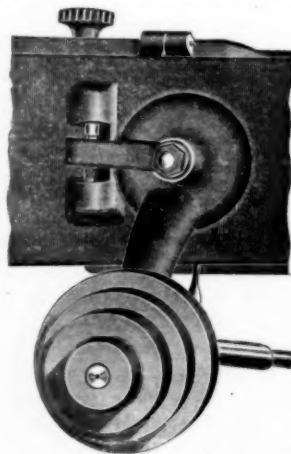
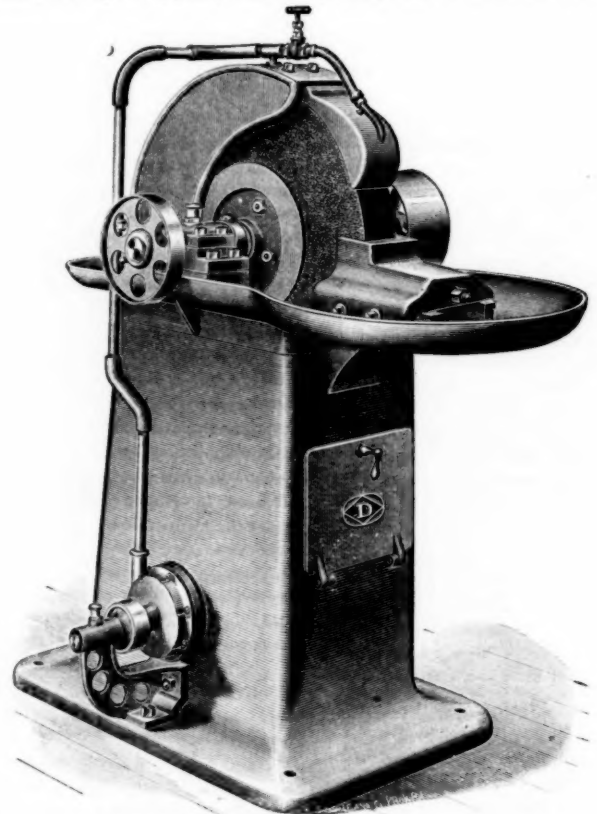


FIG. 3.

engine lathes for changing the feed for screw-threading. A lever locks this disc by engaging one of the notches therein, this device giving eighteen changes of feed from .008 to .216 inch per revolution of the spindle.

From the illustration it will be noticed that these machines are supplied with a full complement of attachments and fittings, such as swivel-vise, change-gears, arbors, pans, oil-pot, etc.; in fact, everything that contributes toward making these machines the most desirable millers now in the market. For further informa-



SINGLE-WHEEL TOOL GRINDER.

running parts are turned accurately to obtain a well-balanced, smooth-running machine. The truing device is permanently attached to the rest. By turning a screw the device is brought to the wheel, which is thus kept true and sharp. The company furnishes wheels with these machines best adapted for this class of work, but will, however, furnish any make of wheels desired.

### Electro Deposition of Zinc.

During the past few years exhaustive experiments have been made in the Electro Deposition of Zinc. The experiments were made with the view of decreasing the cost and procuring a more uniform coating of zinc on iron and steel articles, as well as to avoid the necessity of re-finishing work having recesses that became clogged with the hot zinc or of recutting threads of bolts that also became filled up. While a number of plants for the treatment of the general line of small hardware—bolts, hinges, drawer pulls, hammock hooks, turnbuckles, clamps and ship's hardware—are in successful operation, it is only within the past year that

quired. These, with the necessary solution or salts for solution, zinc plates, or, best of all, cast-zinc plates for anodes, with the necessary electrical connections and fixtures, complete the plant. The tanks for acid are necessary, as the scale must be removed from the iron or steel. The cold water is for cleaning after pickling, and the hot water for cleaning and drying after the work has come from the zinc bath. As in all processes of electroplating, absolute cleanliness and freedom from scale or grease is necessary if the work is to turn out well. The whole secret of success in galvanizing by the cold process lies in the preparation of the work for the bath, provided the solution itself is properly made and maintained.

What will eventually prove highly successful is an apparatus for the galvanizing of small bolts, screws, wire nails and such articles as can be tumbled. Such an apparatus is now in use by which the work is placed in operation at one end, falling out at the other end of the appliance in a finished state. This is experimental only, and before being marketed must be perfected mechanically, but the



conception is good, and can no doubt be carried out successfully.

The Hanson & Van Winkle Co. of Newark, N. J., is installing these cold-process plants, and will gladly furnish such information as may be desired.

#### Moist-Air Pipe Kilns.

There is no feature of modern wood-working establishments which seems to

This is a new idea in the razor line. The company has been experimenting upwards of four years to perfect this article. An interesting feature of the razor is that in hammering the wires together they make a perfect condensation of the metal, thereby insuring a Damascus effect. The company claims that it is never necessary to hone this razor, and should it become worn sufficiently to require honing it will

piston type, and is perfectly balanced. It takes steam at the center and exhaust at the end, and the valve, being hollow, allows the exhaust and water to pass through it, readily reducing the back pressure to a minimum. It is so perfectly balanced that it will last for years without replacing, and then this can be done at a very low cost. It is provided with a special water and oil packing, which

usual in engines of this size, a built-up crank being the kind usually furnished. The superiority of the one-piece forged steel crank is so obvious that nothing more need be said about it.

A good engine with a poor governor is of but little use, and will not give as good results as a poor engine with a good one, consequently great pains have been taken to make the governor on these engines as near perfect as possible. It is undoubtedly the simplest and most effective governor on the market. It has fewer parts than any throttling governor, and is just as easy to adjust and understand. The

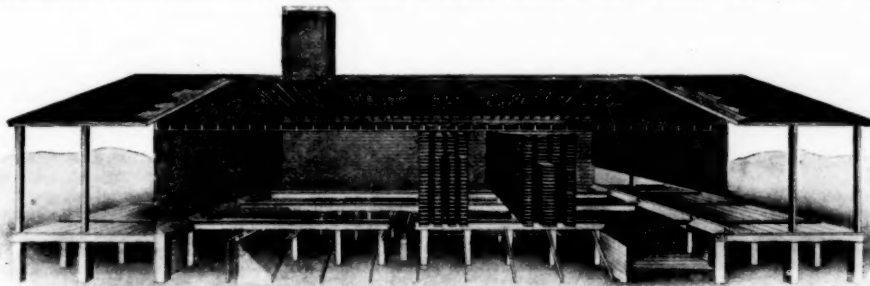


FIG. 1.

be in such a constant state of transition as the dry-kiln. It is but a few years, comparatively, since the only steam kilns used consisted of coils of steam pipes on

be exchanged for a new one. It is beautifully Hamburg concave, with finely-polished back and sides.

The company also issues a unique cata-

logue in the hardware line, known to the trade as "The Green Book of Hardware Specialties," which will be sent gratis to anyone on application.

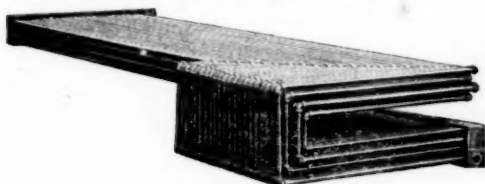


FIG. 2.

the floor of the kiln, and having absolutely no sensible provision made for circulation. This type was followed by the blower kiln, which, viewed from the standpoint of today, was very poorly designed, but undoubtedly did better work than the apparatus it succeeded. The blower kiln continued in favor for a long period, its success depending very largely upon the efficiency of the apparatus and the design of the kiln building.

The "Moist-Air" Pipe Kiln of the American Blower Co. type has found much favor in the drying of timber products. While these "Moist-Air" Pipe Kilns seem in a general way to resemble the old-fashioned pipe kilns, there is absolutely no similarity. The present kiln is so constructed that there is a very rapid circulation of air and a very high degree of humidity. A large proportion of the air is constantly recirculated, and only the thoroughly saturated air is discharged. The air is returned over the earth, which is used as a condensing surface, the facilities which nature provides gratuitously being taken advantage of at every point.

The accompanying cuts give some idea of the construction of this kiln and the coils used, which a glance will suffice to show are arranged to provide perfectly for expansion and contraction.

One who has not actually used these kilns can hardly conceive of the rapidity with which the drying is accomplished and the excellent condition of the lumber turned out. It is impossible in an article of this scope to go into the theory upon which this kiln operates, but it is fully covered in sectional catalogue No. 117, issued by the American Blower Co. of Detroit.

#### New Idea in Razors.

The Smith & Hemenway Co. of 296 Broadway, New York, has brought out the No. 427 "Ran-Tan-Ka-Rus Red Devil Razor," made from sixty small wires, the blank of which is herein illustrated.

general design and appearance of their engines. As can be seen at a glance, the engine is remarkably simple in design. There are several points of excellence specially noteworthy. The valve is of the

On the crank end the strap is held firmly by two bolts, and the brasses are held and adjusted in the same manner as just described. The crankshaft is made of the best quality forged steel, which is un-



FIG. 1.

#### A New Light Vertical Engine.

Wm. E. Hill & Co., Kalamazoo, Mich., manufacturers of the famous Hill steam "nigger," have produced a light vertical

The rod itself is made of the best quality cast steel, and is capable of undergoing any strain. The crosshead end is made solid, the brass is inserted and held firmly in place and adjusted by a wedge-shaped



FIG. 2.

engine, designed to furnish power for dynamos and other light machinery, that, if excellence counts, will soon be as famous as are the "niggers." The accompanying cut gives a very good idea of the

block, which, in turn, is moved by two set screws which work into the wedge, and not against the outside, thus doing away with any strain on the screws and putting it on the wedge, where it belongs.

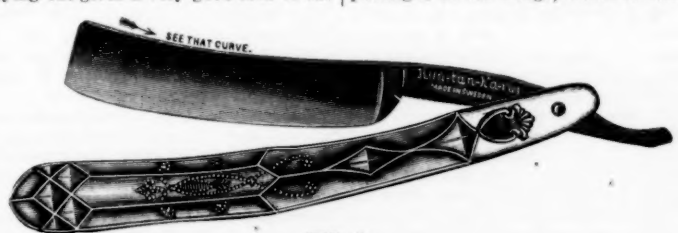
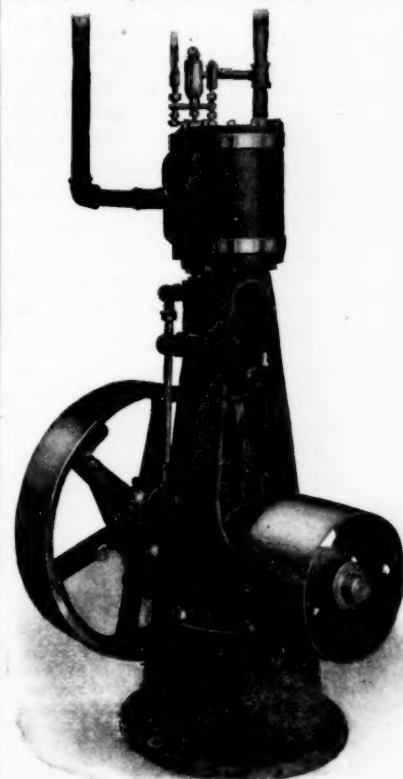


FIG. 3.



NEW LIGHT VERTICAL ENGINE.

difference in economy produced will soon pay for the engine. It is the automatic governor par excellence. Every engine is tested at eighty pounds initial pressure, on which the horse-power is based. Great care has been taken in the shop construction of these engines, and each piece is numbered and lettered, so that in ordering extra parts no mistake is possible. Each piece is made to a templet, so all similar pieces will come alike. The engines are made in nine sizes, three to twenty horse-power. For further particulars, etc., address Engine Department, Wm. E. Hill & Co., Kalamazoo, Mich. When writing please mention Manufacturers' Record.

#### You Are Next.

A rare, beautiful and sparkling gem, surrounded by extensive and primeval forests, that's Rangeley; and as a fishing or health resort few places equal it. The group is made up of a chain of six lakes, and each abounds in the choicest species of salmon and trout. Fishing is a recreative sport which numbers its devotees by the tens of thousands; and why shouldn't it, for it takes one away from the turmoil and excitement of the city, and there is nothing to do but to enjoy the bright sunshine and health-giving air and the calm and quiet atmosphere that pervades the region. Everywhere about the Rangeleys are first-class camps, cabins and hotels in which one may comfortably enjoy his spring visitation. And so accessible has the region become through the introduction of the "Iron Horse" that the sportsman leaving Boston on the night Pullman is landed at his rendezvous by noon of the following day. An interesting guide on fishing, entitled "Fishing and Hunting," is published by the passenger department of the Boston & Maine Railroad, Boston, and for a two-cent stamp you can get it, and if you are a fisherman, you need it. †

# CONSTRUCTION DEPARTMENT.

**THE MANUFACTURERS' RECORD** seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted." In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in a town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and it is often advisable to add the names of one or more incorporators as an aid to the postmaster in delivering mail.

## ALABAMA.

Bessemer—Coal and Railway Company.—The Alabama Coal & Railway Co. has been incorporated, with capital stock of \$50,000, to mine ore and conduct a general coal business. E. H. Lopez, H. C. Mead and H. L. Todd are the incorporators.

Birmingham—Ore Company.—The Birmingham Ore Co. has been incorporated, with capital stock of \$10,000, by W. G. Robinson, W. T. Dillon and D. H. Brown, for the purpose of mining ore.

Cullman—Flour Mill.—Hancock & Imbusch will remodel their flour mill.

Decatur—Laundry.—James and John Hurst of Chattanooga, Tenn., have purchased the Buzz Steam Laundry, and will operate same, installing new machinery for increasing capacity.

Mt. Vernon—Lumber Mill.—The Mt. Vernon Lumber Co., 256 Ashland Building, Chicago, is establishing the hardwood lumber mill lately reported to be erected at Mt. Vernon; capacity will be 25,000 feet per day.

Newton—Cotton and Woolen Mill.—T. J. Killebrew has added 240 spindles, six looms and other machinery to his cotton and woolen mill; also will erect pants factory.

Scottsboro—Cotton Compress.—The American Cotton Co. has closed contract for erection of a round-bale cotton compress in Scottsboro.

Tuscaloosa—Coal Mines.—The Central Iron & Coal Co., lately reported incorporated, has leased and will develop 5000 acres of coal lands in Tuscaloosa county. C. E. Crandall is manager.

## ARKANSAS.

Alma—Cotton Gin and Grist Mill.—Col. Jacob Yoes is arranging to build a cotton gin and grist mill near Alma.

Alma—Cotton Gin.—Adams Bros. have erected building, and will install cotton gin and press.

Brentwood—Evaporator.—A fruit evaporator will be installed. For information address J. E. London of Alma, Ark.

Cypress—Saw and Shingle Mill.—The Cypress Lumber & Shingle Mill, lately reported to be erected at Little Rock, has purchased the saw and shingle mill and cypress timber of the Baxter Manufacturing Co. at

Cypress. Address W. B. Ferguson, president, at Little Rock.

Frank—Flour Mill and Gin.—D. T. Kirkpatrick & Co. is clearing out the timber and building dam for their grist mill, flour mill and gin, recently reported to be erected and operated by water-power.

Helena—Sewerage.—Contract for construction of the sewerage system before noted has been awarded to Guild & Co. of Chattanooga, Tenn., at \$55,132.

Kendall—Planing Mill.—Frank Kendall is rebuilding his planing mill, lately reported burned.

Little Rock—Cotton Mill.—The Thomas Cotton Mills, operating 3300 ring spindles, has been reorganized and may increase output.

Lonoke—Irrigation Plant.—The Arkansas Rice Co. has been organized, with capital stock of \$10,000, and George Sibley, president; George H. Rule, vice-president; W. H. Vivian, secretary, and John M. Davis, treasurer; will install a 10-inch centrifugal pump for irrigating purposes.

Pine Bluff—Chartered: The J. T. Lloyd Co., with capital stock of \$17,500, by J. T. Lloyd, president; George W. Clements, secretary and treasurer.

Strand—Mill.—The Oak Leaf Mill Co. has been incorporated, with capital stock of \$20,000, by F. R. Pierce, president; H. C. Anderson, secretary; Gibbs Biscoe, C. V. McDaniel and others.

Texarkana—Brick Plant.—G. W. Fouke has purchased site and will erect a \$30,000 pressed-brick factory.

Waldron—Coal and Iron Company.—The Stephenson Coal & Iron Co. has been incorporated, with capital stock of \$100,000, by G. Cox, president; L. L. Sullivan, secretary, and James Cox, treasurer.

Winslow—Evaporator.—A fruit evaporator will be established. J. E. London of Alma, Ark., can give information.

## FLORIDA.

Bronson—Saw-mill.—Messrs. Phillips & McEachern will erect a saw-mill.

High Springs—Saw-mill.—L. C. Gracy will establish a large saw-mill and operate a sash, door and blind factory in connection with it.

Jacksonville—Water Company.—The Riverside Water Co. has been incorporated, with capital stock of \$3000, by John A. Preston, J. N. C. Stockton and A. H. King.

Pensacola—Laundry.—The American Laundry Co. has organized and will begin operations at once; H. A. Brosnahan and R. C. Caldwell, proprietors.

Tallahassee—Phosphate Deposits.—It is reported that Charles R. Flint and William Graves of New York have acquired an interest in the phosphate deposits in Lafayette county.

Tampa—Drug Company.—The Morton Drug Co. has been chartered, with capital stock of \$30,000, by I. N. Morton and others.

## GEORGIA.

Adel—Knitting Mill.—Efforts are being made for the organization of a \$30,000 stock company for the establishment of a knitting mill. Names of interested parties will be announced later.

Adel—Planing Mill.—J. H. Knight contemplates remodeling and enlarging his planing mill.

Adel—Knitting Mill.—J. G. Jones of Cordele, Ga., representing capitalists, has made a proposition to locate a \$30,000 knitting mill in Adel, provided the citizens will subscribe \$10,000.

Atlanta—Water-works Improvement.—J. M. Alexander & Co. have received contract for the new traveling crane at Station No. 2 of the water-works system; contract price \$3400.

Atlanta—Land Improvement.—Olive M. Henley, W. T. Henley and Charles A. Henley have incorporated the Henley Real Estate & Improvement Co., with capital stock of \$150,000, and privilege of increasing to \$1,000,000.

Augusta—The Premium Discount Check Co. has been incorporated, with capital stock of \$4000, and privilege of increasing to \$10,000, by David Shaver, Jr., J. W. Levy, W. S. Morris and others.

Augusta—Drug Company.—Nathaniel L. Willet, William B. Marks, John Phinizy and

others have incorporated the Augusta Drug Co., with capital stock of \$58,000.

Boykin—Lumber Company.—The Babcock Lumber Co. has been incorporated, with capital stock of \$100,000, by E. V. Babcock, F. R. Babcock, C. L. Babcock and O. H. Babcock, all of Pittsburg, Pa.; W. A. Wheeler and E. H. Hammond of Bainbridge, Ga.

Dahlonega—Electric Plants, etc.—A. J. Warner and W. A. Carlisle of Marietta, Ohio, and J. F. Moore have incorporated the North Georgia Electric Co., with capital stock of \$50,000, for conducting a general electrical business, construction of water-works, etc.

Dublin—Bridge.—A. R. Arnau, William Kea and J. M. Blackshear have been appointed a committee to receive plans and specifications for the proposed extension of the Oconee river bridge; extension will be 1100 feet, and bridge is to have a foundation of concrete or crushed stone. Contract will be awarded within the next sixty days.

Dupont—Sugar Refinery, etc.—George J. Munroe of Joliet, Ill., secretary and treasurer of the Southern Cattle Co., which has just purchased 51,000 acres of land in Clinch county, is reported as stating that extensive improvements will be inaugurated, including the establishment of a large sugar refinery. B. F. Mysewander of Indianapolis, Ind., will be at the head of the new company.

Columbus—Cotton Mill.—The Eagle & Phoenix Mills has installed 110 additional looms.

Fort Gaines—Electric Plant.—The Fort Gaines Mill & Power Co., lately organized, will install a 500-light plant to be operated by water-power. Address for particulars J. H. Fulford.\*

La Grange—Cotton-oil Mill.—George W. Truitt states that there is no authority for the recent report that he would build a cottonseed-oil mill.

La Grange—Mercantile.—J. E. Dunson and others have incorporated the J. E. Dunson & Bros. Company, with capital stock of \$35,000.

Moultrie—Sugar Mill.—It is reported that Boston capitalists have purchased large tract of land in Colquitt county, which they will plant in sugar-cane; they also contemplate the manufacture of sugar.

Valdosta—Hardware Company.—J. H. Harley, H. M. Goin and others have incorporated the Harley Hardware Co., with capital stock of \$15,000.

Valdosta—Vehicle Factory.—C. P. and R. P. Henderson of Birmingham, Ala.; E. E. Rogers of Milwaukee, Wis.; C. R. Ashley, S. B. Godwin, H. C. Briggs and others have incorporated the Henderson Buggy Co., with capital stock of \$5000, and privilege of increasing to \$50,000, for the manufacture of vehicles.

Washington—Cotton Mill.—James A. Benson, proprietor of the Excelsior Manufacturing Co., is interested in the organization of a company for the establishment of a cotton mill.

## KENTUCKY.

Carlisle—Improvement Company.—Chartered: The Carlisle Improvement Co., with capital stock of \$8000.

Covington—Tobacco Company.—The Leavelle-Buffington Tobacco Co. has amended its charter, increasing capital stock to \$500,000 from \$300,000.

Elizabethtown—Ice Factory.—Sweets Bros. will erect the ice factory reported last week.

Frankfort—Mineral Land Development.—Joseph C. Snow of Plymouth, Mass., and others have incorporated the Eureka Development Co., with capital stock of \$50,000, for the development of Kentucky mineral lands.

Lexington—Fence Factory.—D. W. Aylworth is investigating with a view to establishing a plant in Lexington for the manufacture of his patent anchor fence.

Louisville—Ice Plant.—The National Ice & Cold Storage Co., reported lately as having increased its capital stock, will improve and enlarge its plant.

Maysville—Tobacco Factory.—Parties are investigating with a view to organizing a \$100,000 stock company for the erection of a tobacco factory. W. D. Cochran, secretary Board of Trade, can be addressed.

Somerset—Oil Company.—Chartered: The Somerset Oil Co., with capital stock of \$10,000. Address J. P. Hornaday.

Somerset—Oil Wells.—The Sunny Brook Oil Co. has been organized, with J. P. Hornaday as chief incorporator, for drilling oil

wells in Wayne and Fentress counties; capital stock \$25,000.

## LOUISIANA.

Abbeville—Irrigating Canal.—Hunter Bros. will enlarge their irrigating canal about 50 per cent.

Breaux Bridge—Oil Lands.—Dr. H. Chachere and others of Crowley, La., have purchased and will develop fifty-four acres of oil lands near Breaux Bridge.

Concordia Parish—Timber Lands.—The Iowa & Louisiana Land Co., Limited, was recently organized by A. T. Averill, Glenn M. Averill, Witner Bros., John M. Griffin, Geo. B. Dutton and others, all of Cedar Rapids, Iowa, and David R. Fargon of Chicago, for the purchase of 140,000 acres of hardwood lands in Concordia parish; it is their purpose to induce hardwood manufacturers to locate their plants on this property.

Covington—Electric-light Plant.—R. S. Stearnes & Co. of New Orleans, La., have been awarded contract for the installation of an electric-light plant at Covington, including electric apparatus.

Covington—Ice Plant.—The St. Tammany Ice & Manufacturing Co., Ltd., has completed building, and will install a 10-ton ice plant.

Gueydan—Rice Mill.—The Gueydan Rice Mill has been organized, as reported recently, and will establish a mill of 600 barrels per twelve hours. Address W. L. Doss.\*

Jennings—Canal.—The Northern Canal Co., which succeeds the Williams & Cooper canal, has applied for charter, with capital stock of \$50,000. C. H. Morse is president; S. A. Spencer, vice-president; C. S. Morse, secretary, and F. F. Morse, treasurer.

Loyd—Sugar Mill.—The Loyd Sugar & Molasses Co. has been incorporated, as reported lately, and will grind from 18,000 to 20,000 tons of cane, and will use the open-kettle process in the manufacture of syrups; J. D. Clark, vice-president.\*

Minden—Cotton Mill.—T. H. Drake, J. R. Miller, T. Crichton, D. L. Mims and others are endeavoring to organize the proposed cotton-mill company previously reported.

New Orleans—Ice Factory.—The Riverside Ice Co., William Russell, president, is erecting a new ice factory with capacity of seventy-five tons per day, and expects to have the plant in operation by June 1.

New Orleans—Bindery.—A. J. Leroy and others have incorporated the A. J. Leroy Bindery Co., with capital stock of \$5000, for conducting a general bookbinding business, etc.

New Orleans—Milling.—W. S. Robertson, H. A. Marshall, Jas. W. Martin, A. B. Cleary and others have incorporated the Maurepas Milling Co., with capital stock of \$150,000, for the manufacture of lumber, woodenware, etc.

Newroads—Cotton Mill.—The proposed cotton-mill company recently reported will have a capital stock of \$75,000 and manufacture yarns. Z. T. Henderson is interested.

Plaquemine—Stave and Heading Mill.—The Plaquemine Stave & Heading Co., Ltd., has been incorporated, with capital stock of \$12,000, by John M. Peterson, William G. Gohn, William H. Nuttall and others, for the manufacture of staves and headings.

Shreveport—Hardware Company.—The Lee Hardware Co. has increased its capital stock from \$100,000 to \$150,000.

Welch—Canal.—The Indian Bayou Canal Co. has been incorporated, with Paul W. Daniels, president; Mrs. Frances C. Daniels, vice-president, and H. S. Daniels, secretary and treasurer. Company has already begun work on construction of its Indian Bayou canal. Authorized capital is \$100,000.

## MARYLAND.

Baltimore—Drug Company.—The Tate Remedy Co. has been incorporated for dealing in drugs, etc., by George L. Mowen, Edward H. Hargrave and others; capital stock is \$15,000.

Baltimore—Real Estate.—Chartered: The Glenwood Springs Co., for dealing in real estate, by Henry C. Bowman, Howard M. Emmons, Thomas Hicks and others; capital stock \$36,000.

Baltimore—Tinware Factory.—William J. H. Gluck will double the capacity of his tinware factory.

Baltimore—Brewing Company.—The Gottlieb-Baurnschmidt-Strauss Brewing Co. has been incorporated to take over and operate



the properties of the Maryland Brewing Co. The incorporators are Frederick H. Gottlieb, John Bauernschmidt, Joseph H. Strauss and others.

Cumberland—Fertilizer Plant.—The Potomac Fertilizer Co. has been incorporated, with capital stock of \$20,000, by George D. Landwehr, W. J. McCarty, Daniel Houck and others.

Glyndon—Power Plant.—Reister Russell, Frank Zouck, T. Rowe Price, W. L. Shriver and others have incorporated the Reisters-town & Glyndon Water, Light & Power Co., with capital stock of \$25,000. Address Frank Zouck, Glen Morris, Md.

Hagerstown—Furniture Factory.—The Main Furniture Co. will rebuild its factory lately reported burned.\*

Laurel—Electric-light Plant and Water-works.—The construction of the proposed water-works and electric plant, previously mentioned, will be carried out at once. Address Edward Phelps, mayor.\*

#### MISSISSIPPI.

Brookhaven—Mercantile.—Chartered: The Brookhaven Mercantile Co., with capital stock of \$25,000, by E. Pfeifer and others.

Clarksdale—Bridge.—A steel bridge will be constructed across Sunflower river and bids are wanted. Address "Board of Supervisors."\*

Columbus—Knitting Mill.—The \$30,000 company reported lately as being formed for establishment of knitting mill has been chartered as the Columbus Hosiery Mills, by J. B. Bell, V. D. Molloy and others.

Harrison County.—It is reported that Hon. W. V. Sullivan of Oxford, Miss., represents a syndicate of Eastern capitalists which contemplates the building of a new town in Harrison county, expending about \$200,000 on the enterprise, which will include the erection of lumber, woodworking and cotton mills.

Jackson—Fertilizer Factory.—The Jackson Fertilizer Co., lately reported to erect a new fertilizer plant, has awarded contract to N. T. Pratt of Atlanta, Ga.; cost \$100,000.

Laurel—Knitting Mill.—The \$30,000 stock company reported during the week as incorporated for the establishment of a knitting mill will be known as the Mississippi Knitting Mills. Edmund K. Stallo, F. W. Pettibone, L. L. Denson, Ed Peirce and others are the incorporators.

Meridian—Cross-arms Factory.—J. M. Brownlee, J. H. Kittermaster and W. C. Folvoe will establish a cross-arms factory; buildings will include dry-kiln, offices and power plant.

Natchez—Land-improvement Company.—The company reported during the week as incorporated, with capital stock of \$100,000, will be known as the Clifton Land & Improvement Co., organized to deal in and improve real estate.

Pass Christian—Cannery.—The Pass Packing Co. has increased its capital stock from \$40,000 to \$100,000 for the purpose of enlarging its plant.

Vicksburg—Lumber Mill.—The Houston Lumber Co. of Chicago has optioned seventy acres of land, and will establish a plant at Vicksburg for the manufacture of all grades of lumber, including hardwoods.

#### MISSOURI.

Joplin—Paint Company.—Chartered: The Renfrow Paint Co., with capital stock of \$100,000, by W. C. Renfrow, A. H. Ward, J. L. Bate Enfield and others.

Kansas City—Investment Company.—The Bell Investment Co. has been incorporated, with capital stock of \$300,000, by Victor B. Bell, H. C. Brant and others.

Kansas City—Coal Mining.—J. R. Crowe, D. J. Dean, Willis Wood and J. H. Bennett have incorporated the J. R. Crowe Coal & Mining Co., with capital stock of \$250,000.

Kansas City—Oil Company.—The United Oil Co. has been incorporated, with capital stock of \$100,000, by John G. Muehlbach, Jas. R. Riggins, R. MacMillan and others.

Kansas City—Live-stock Company.—Chartered: The Foster-Cherry Live-Stock Co., with capital stock of \$5000, by George W. Foster and others.

Kansas City—Slate Quarry.—The American Slate Co. has been organized, with capital stock of \$500,000, by Day Mills of Pittsburg, Kans.; Allan J. Rodman of Kansas City; John H. Todd of Mena, Ark.; Henry W. Scott of New York and others.

Kansas City—Plaster Factory.—The Flexible Wood Fiber Plaster Co., recently reported incorporated, will manufacture a wall plaster composed of wood fiber and other materials.

New Franklin—Cannery.—The New Franklin Canning Co. has been incorporated, with capital stock of \$6600, by R. T. Kingsbury, president; R. A. Clark, vice-president; C. I. Smith, treasurer, and Paul White, secretary.

Poplar Bluff—Mercantile.—Chartered: The Gardner-Macom Mercantile Co., with capital stock of \$6000, by Samuel Gardner and others.

St. Joseph—Shoe Factory.—Noyes, Norman & Co. will rebuild their shoe factory recently reported burned; building will be 40x140 feet and equipped with a full line of machinery for plant of from 1500 to 2000 pairs of shoes per day.

St. Louis—Envelope Company.—The National Envelope Co. has been incorporated, with capital of \$2100, by Austin Carter, F. P. Moss and others.

St. Louis—Lumber Company.—Chartered: The Hallett Lumber Co., with capital stock of \$2000, by Edward H. Hill, George S. Johnson and others.

St. Louis—Food Company.—The Layton Pure Food Co. has been incorporated, with capital stock of \$30,000, by Whitney Layton and others.

#### NORTH CAROLINA.

Carthage—Hotel.—The Summit Hotel Co., lately reported incorporated by W. C. Petty, G. C. Graves and others, has purchased the Summit Hotel property, and will make improvements, including the erection of an addition to building and the installation of electric-light plant and water-works.

Cary—Wagon Factory.—The Harrison Wagon Co. has been incorporated, with capital stock of \$16,000, by J. R. Harrison, W. Bell of Cary, Thos. M. Jordan, F. T. Ward and others, for the purpose of enlarging and operating the plant formerly operated by J. R. Harrison and W. M. Bell.

Charlotte—Cotton Mill.—The Highland Park Manufacturing Co. will erect a new weavehouse.

Charlotte—Electric-light Plant.—The Alpha Mills has contracted for the installation of an electric-light plant.

Charlotte—Bridge.—The board of county commissioners has awarded contract for construction of an iron bridge across Steele creek to replace the plank bridge.

Charlotte—Telephone Company.—The Queen City Telephone Co., recently reported as having been purchased by James B. Curtis of 71 Wall street, New York city, has changed its name to the Charlotte Telephone Co., incorporated with capital stock of \$30,000, by James B. Curtis, Joseph Q. Taylor and A. A. Miller.

Concord—Water-works Improvement.—J. W. Cannon has purchased the controlling interest in the Concord Water-Works Co., and will make extensive improvements to the plant, including the sinking of an artesian well 500 feet deep.

Dunn—Improvements.—The city will vote May 6 on the issuance of \$35,000 of improvement bonds. Address "The Mayor."

Goldsboro—Overall, etc., Factory.—A factory for the manufacture of shirts, overalls, etc., will be established with a capacity of 100 machines. Address Humphrey-Gibson Company.

Greenville—Sash, Door and Blind Factory.—The company reported recently as being formed by F. M. Hodges and others for the manufacture of sash, doors and blinds has completed its organization, with J. G. Moye, president, and Mr. Hodges, secretary and treasurer; capital stock is \$8000, with privilege of increasing to \$30,000.

North Carolina—Mining.—The North Carolina Mining Co. has been incorporated in West Virginia for mining, milling and smelting gold, silver, copper, lead, etc.; authorized capital \$2,000,000; incorporators, Frederick Kolb, Curt C. Pfeiffer, George Semler and others, all of George Borfett & Co., 38 West Fourth street, New York city.

Sanford—Cotton Mill.—The Sanford Cotton Mill will add 5000 spindles and 240 looms; now has 5000 ring spindles and 250 looms; order for machinery has been placed.

Scotland Neck—Knitting Mill.—The Lockland Knitting Mills is enlarging its building, and additional machines will be installed to double output.

Scotland Neck—Cotton Mill.—The Scotland Neck Cotton Mills will enlarge its plant, and improvements include the erection of a new building for its knitting department, the present building to be used as a spinning mill.

Scotland Neck—Cotton Mill.—The Scotland Neck Cotton Mills will enlarge by the addition of a spinning department with 2500 spindles; heretofore the company only knit.

Winston-Salem—Cotton Mill.—G. E. Webb, secretary Chamber of Commerce, may be

addressed regarding the proposed \$100,000 cotton mill lately reported.

#### SOUTH CAROLINA.

Charleston—Hotel Company.—Chartered: The Argyle Hotel Co., with capital stock of \$60,000, by W. B. Wilson, George H. Moffett and others.

Clover—Stone Quarry.—Charles McVeigh and William Shea of Westerly, R. I., will develop stone quarry at Clover.

Columbia—Distillery.—Walter & Lagare are receiving bids for erection of the distillery to be established in Columbia by the Richmond Distilling Co., lately reported.

Greenville—Furniture Company.—Chartered: The Feable Furniture Co., with capital stock of \$12,000, by G. H. Feagle, S. S. Birge and A. H. Kohn.

Greenville—Telephone System.—Franchise has been granted to the American Telephone & Telegraph Co. for construction of a long-distance telephone system.

Greenville—Electric-light Plant.—The Monahan Cotton Mills has contracted for the installation of an electric-light plant.

Honea Path—Lumber Company.—The Honea Path Lumber Co. has been organized, with capital stock of \$5000, to deal in lumber; incorporators are L. M. Wilson, W. G. McGhee, J. R. Harris and others.

Mullins—Cotton Gin.—W. H. Daniel, B. G. Smith and G. R. Reaves will erect a cotton gin.

North Augusta—Electric Plant, Water-works, Cotton Mill, etc.—The North Augusta Electric & Improvement Co. has been incorporated, with capital stock of \$1,500,000, to deal in real estate, build electric road, electric-light plant, water-works, and also proposes establishing manufacturing plants, including a cotton mill. Alfred S. Elliott of Wilmington, Del.; James A. Jackson of Augusta, Ga., and Henry Bulst of Charleston, S. C., are the incorporators.

North Augusta—Lumber Company.—The Youngblood Lumber Co. has been incorporated for the manufacture of sash, doors and blinds, with capital stock of \$20,000.

Rock Hill—Cotton Mill.—The Chicora Cotton Mills, reported recently as incorporated, has acquired and will operate the Crescent Cotton Mills of 7904 ring spindles and 104 looms; 3500 additional spindles have been ordered.

Spartanburg—Bottling Works.—J. T. Harris has purchased the White Rock Lithia Springs in Spartanburg county, and will install bottling plant.\*

#### TENNESSEE.

Blount County—Timber Lands.—It is reported that Pennsylvania capitalists have purchased 50,000 acres of mountain timber lands in Blount county and will develop the property by the construction of a railroad, erection of saw-mills and woodworking plants.

Bolivar—Clay and Sand Company.—The Irwin Clay & Sand Co. has been incorporated, with capital stock of \$25,000, by W. W. Irwin, B. A. Smith, Irwin Hunt and others.

Bristol—Brick Works.—A. D. Reynolds contemplates the organization of a stock company for the manufacture of brick from sand and desires correspondence.\*

Bristol—Woodworking Plant.—The Ordway Manufacturing Co. of South Framington, Mass., will establish a plant in Bristol for the manufacture of chair stock, dowels, wooden ropes and hardwoods of all kinds. There will be a main building of two sections 60x100 feet each, machine shop 25x50 feet, and an electric-power plant 50x100 feet. Company has chartered under Tennessee laws, and the factory will cost not less than \$50,000. A. H. Ordway is president and general manager; H. M. Howard, vice-president; Wm. F. Howard, treasurer, and C. F. Boyer, secretary.

Chattanooga—Bed-spring Factory.—Mel and Walter Wight will organize a stock company for the establishment of a bed-spring factory.

Chattanooga—Pipe Works.—The erection of buildings will be commenced at once for the Bridgeport (Ala.) branch of the United States Cast Iron Pipe Co., to be removed to Chattanooga.

Chattanooga—Fertilizer Factory.—It is reported that a large fertilizer factory will be established; names of interested parties to be announced later.

Chattanooga—Foundry.—The Mountain City Store Co. will rebuild at once its \$50,000 foundry, reported burned.

College Grove—Handle Factory.—S. B. Wilson has enlarged his broom factory by installing machinery for manufacturing handles.

Dyersburg—Electric-light Plant and Water-works.—W. A. Folkes, Jr., mayor, will receive propositions on June 1 on granting franchise of twenty years for water and light plant for the city. Certified check for \$500 must accompany each proposition, and usual rights reserved.

Huntingdon—Stave Mills.—The C. H. Wright Stave Co., reported during the week as having increased its capital stock to \$10,000, will operate four mills, three in Tennessee and one in Missouri. The annual capacity will be 8,000,000 to 10,000,000 white-oak staves. Home office will be at Huntingdon.

Knoxville—Lead-pencil Timber Mill.—S. Chichester and Otto Hauer of South Pittsburg, Tenn., are investigating with a view to establishing a large lead-pencil timber mill at Knoxville, and are said to be in conference with J. C. Sterchi.

Knoxville—Knitting Mill.—The Knoxville Knitting Mills Co. confirms its purchase, mentioned last week, of the knitting plant of the George Manufacturing Co. of Greensboro, N. C. The machinery is now in position in Knoxville, and the company contemplates further additions of new machinery.

Knoxville—Barytes Mines and Mills.—The Hiwassee Mineral Co. is making preparations to develop on an extensive scale its barytes properties in East Tennessee; several new mines will be opened, and the Lonsdale mill will be put in operation and used for grinding barytes ore. Two other mills are also said to be contemplated, one at Lenoir City and the other at Newport or elsewhere in Cocke county. Chas. A. Weller is general manager.

Knoxville—Excelsior Factory.—The Utica Cabinet Co. has recently built an addition to its saw-mill and installed machinery for the manufacture of excelsior.

Memphis—Macaroni Plant.—L. Solari, Paul Lenzi, A. P. Canale and J. C. Tate have formed a company and will establish at once a macaroni plant.

Memphis—Ice-cream Plant.—The Headley Ice Cream Co. has erected building 40x100 feet and installed machinery for the manufacture of ice cream with daily capacity of 1500 gallons.

Memphis—Trunk Factory.—The Memphis Trunk Manufacturing Co. has been incorporated, with capital of \$1000, by J. F. Hinton, W. B. Holley, L. B. Hinton and others.

Memphis—Paint Factory.—The Memphis White Lead Works and the Memphis Varnish Co. have been chartered, as reported during the week, and will erect a three-story building for the manufacture of paints, white lead, varnish, enamels, etc. Address F. C. Storey.

Rockwood—Coke Ovens.—The Roane Iron Co. has, it is said, decided to erect 150 coke ovens.

Rogersville—Road Improvements.—An election will be held April 27 to decide the issuance of \$100,000 of bonds for construction of pike roads. Address "County Clerk."

Winchester—Electric-light Plant and Water-works.—The city will issue \$30,000 of bonds for erection of electric-light plant and water-works. Address D. Taylor, clerk.

Winchester—Water-power Development.—Walter G. Kirkpatrick of Jackson, Miss., has been engaged to make surveys for the development of the power of the Elk river at Winchester. Dam will be constructed and the power developed by electricity, which will be transmitted to the town and used for lighting and manufacturing purposes and for operating a system of water-works, for which will be needed cast-iron mains, steel tank and tower.

#### TEXAS.

Alvin—Oil, etc., Company.—The Alvin Oil, Rice & Development Co. has been incorporated, with capital stock of \$10,000, to bore for oil, deal in real estate, etc.

Athens—Ice Plant.—The Athens Ice Refrigerating Co. has been incorporated, with capital stock of \$15,000, by R. A. McDonald, A. S. J. Howell and S. H. Adams.

Austin—Mining.—The Equitable Mining Co. has been incorporated to prospect for minerals and oil; capital stock \$50,000, and the incorporators are A. J. Eilers, J. C. Underwood, F. N. Bullock and others.

Beaumont—Oil Company.—The Roby Oil Co. has been incorporated, with capital stock of \$300,000, to prospect for oil, build pipe lines, etc., by M. Marx, I. H. Kempner of Galveston, J. A. Paulhamus of Beaumont and others.

Beaumont—Oil Company.—The Seaboard Oil Co., with capital stock of \$500,000, has been incorporated by G. W. Boschke, J. H. Hill, C. H. Vidor, A. W. Miller and others.



**Beaumont—Oil and Mineral Company.**—Chartered: The Neches Valley Oil & Mineral Co., with capital stock of \$100,000, by T. W. Ford, W. J. Crawford, C. L. Nabers and others.

**Beaumont—Oil and Mineral Company.**—The Beaumont Oil & Mineral Co. has been incorporated, with capital stock of \$50,000, by T. W. Shepherd, J. Weiss, L. R. Levy and others to prospect for oil, construct pipe lines, etc.

**Beaumont—Oil Wells.**—The Anglo-American Oil & Gas Co., with principal office at 52 Broadway, New York city, has completed its organization, and will begin extensive developments in Southwest Texas. Hon. Jas. N. Houston is president; J. W. Snedeker, secretary, and J. D. Cameron, general manager. Capital stock is \$5,000,000.

**Beaumont—Oil Company.**—The Oleander Oil Co., with capital stock of \$125,000, has been incorporated by M. Marx of Galveston, I. D. Polk of Beaumont, S. T. Staitl of Waco and others.

**Beaumont—Oil Wells.**—The Houston-Beaumont Oil Co. has been chartered, with capital stock of \$100,000, by O. L. Cochran, Ed Browne, O. C. Drew, J. E. Browne and others, all of Houston, for development of oil lands at Beaumont.

**Beaumont—Oil Company.**—The Temple-Beaumont Oil Co. has been organized at Temple for development of oil lands in the Beaumont district, by L. R. Wade, president; A. J. Jarrell, vice-president; A. F. Bentley, secretary, and P. L. Downs, treasurer.

**Beaumont—Oil Company.**—The Treadway Oil Co., with capital stock of \$100,000, has completed its organization and applied for charter. The directors are T. H. Langham, W. F. Treadway, Frank Alvey, W. B. Dunlap and others.

**Belton—Oil Company.**—Chartered: The Baby Oil Co., by G. E. Wilcox, P. L. Downs, W. H. Stegall, H. M. McClevey and others.

**Blum—Cotton-oil Mill.**—A cottonseed-oil mill will be established at a cost of \$40,000; names of interested parties to be announced later.

**Calvert—Cotton Mill.**—J. A. Smith, manager of the Denison (Texas) Cotton Mill, is investigating with a view to establishing a \$55,000 mill at Calvert.

**Clarendon—Telephone Company.**—The Clarendon Telephone Co. has been incorporated, with capital stock of \$3000, by R. W. Talley, John M. Clower, J. D. Stocking and others.

**Clarksville—Ice Factory.**—The Texas Ice Co., and not the Texas Oil Co., as reported recently, has been chartered for the erection of an ice factory, by H. L. Norris, J. B. Lassiter and A. M. Graves.

**Claude—Towel and Handkerchief Mill.**—Emile Reck states that he has no intention whatever of establishing a towel and handkerchief mill, as had been reported.

**Cleburne—Telephone System.**—The Independent Telephone Co. of Waco, Texas, has applied for franchise to construct a system at Cleburne; J. Bayless Earle, general manager.

**Cleburne—Mercantile.**—Chartered: The Cleburne Grocery Co., with capital stock of \$20,000, by S. T. Shaw and others.

**Dallas—Construction Company.**—The Wendelken Construction Co. has been chartered, with capital stock of \$15,000, by F. S. Wendelken, W. D. Wylie, Jr., and others.

**Dallas—Drug Company.**—Chartered: The Rippetoe Drug Co., with capital stock of \$20,000, by J. A. Rippetoe and others.

**Denison—Cigar Factory.**—C. W. Senti has established a cigar factory at 173 North Mirick street.

**Fayetteville—Butter and Cheese Factory.**—W. F. Welch, representing the Chicago Buildings Manufacturing Co., is reported as interested in the establishment of a butter and cheese factory at Fayetteville.

**Ferris—Brick Works.**—The Ferris Press Brick Co. has been incorporated, with capital stock of \$20,000, by T. G. Cole, T. J. Weatherford, G. E. Casidy and others.

**Fort Worth—Hardware Company.**—Chartered: The Mickle-Burgher Hardware Co., with capital stock of \$50,000, by J. Mickle, Joe T. Burgher and others.

**Fort Worth—Mercantile.**—Chartered: The Davenport & Batterson Co., with capital stock of \$25,000.

**Galveston—Oil Company.**—Chartered: The Geyser Oil Co., with capital stock of \$100,000, by W. T. Austin, V. E. Auetin, H. H. Robinson and others.

**Galveston—Oil Company.**—Chartered: The Galveston-Beaumont Oil Co., with capital stock of \$300,000, by C. H. Wilkinson, W. C. Fisher, Ronald McDonald and others.

**Hico—Cannery.**—J. P. Rodgers may be addressed regarding the establishment of the cannery lately mentioned.

**Houston—Oil Company.**—Chartered: The Island Oil Co., with capital stock of \$500,000, to prospect for oil, coal and other minerals, by Edward Kiam, Thomas Richardson, F. C. Jones, Edward Watkins and others.

**Houston Heights—Showcase Factory.**—J. S. Purdy, operating showcase factory at Houston, will erect and operate a plant at Houston Heights.

**Houston—Irrigation Company.**—The Brazoria-Rio Grande Irrigation Co. has been incorporated, with capital stock of \$300,000, by W. J. Moore of San Antonio, William T. Austin, R. M. Cash of Galveston, H. Masterson of Houston and others.

**Houston—Oil Development.**—J. A. Friedman & Co. are organizing a company for the purpose of drilling for oil.

**Houston—Rice and Sugar Company.**—The Texas Rice & Sugar Planters' Co. has been incorporated, with capital stock of \$50,000, to construct and operate mills, elevators, gins, compresses, etc. J. E. Martin, G. R. Sullivan and B. M. Hammond are the incorporators.

**Hubbard City—Furniture Company.**—The Hubbard City Furniture Co. has been incorporated, with capital stock of \$50,000, by W. E. Barry, J. W. Gates and Joe M. Barry.

**Iredell—Cotton Gin.**—W. J. Rosomond of Hico, Texas, will erect a four-stand cotton gin at Iredell.

**Itasca—Cotton Mill.**—The Itasca Cotton Manufacturing Co. will increase its capital stock from \$100,000 to \$150,000.

**Lancaster—Cotton-oil Mill.**—Arrangements are about completed for the establishment of the cottonseed-oil mill. Names of those interested will be announced later.

**Mansfield—Grain Elevator.**—The Mansfield Grain & Elevator Co. has been incorporated, with capital stock of \$8000, by W. L. Hutcheson, S. S. Smith, Joseph Edwards and others.

**Mineral Wells—Oil Company.**—Matt Skeen, J. T. Harris, John P. Birdwell, R. B. Preston and others have organized a company, with capital stock of \$40,000, for prospecting for oil.

**Port Arthur—Light and Power Company.**—The Port Arthur Light & Power Co. has been incorporated, with capital stock of \$25,000, by E. J. Baker, G. M. Craig, Frank Cummings and others.

**Rockdale—Coal Company.**—The Big Lump Coal Co. has been incorporated, with capital stock of \$25,000, by C. H. Coffield, H. L. Witcher and J. F. Coffield.

**San Antonio—Oil Company.**—The Alamo City Oil Co. has been incorporated, with capital stock of \$25,000, to prospect for oil, gas, salt, etc., by W. A. Fitch, John Bollons, W. A. Shafer and others.

**Taylor—Cotton Gin.**—The Taylor Gin Co. has been incorporated, with capital stock of \$8000, by F. W. Maddin, T. A. Brandes and F. E. Ripley.

**Valley Mills—Cotton-oil Mill.**—A company will be organized, with capital stock of \$25,000, for establishment of a cottonseed-oil mill. Names of interested parties will be announced later.

**Van Alstyne—Cotton-oil Mill.**—The Van Alstyne Cotton Oil Co. has been incorporated, with capital stock of \$50,000, by R. M. Cannon, J. R. McKinney and D. S. Thompson.

**Wichita Falls—Irrigation Company.**—Chartered: The Lake Wichita Irrigation & Water Co., with capital stock of \$100,000, by M. Lasker of Galveston, I. H. Kempner of Wichita Falls and Henry Sales of Abilene.

#### VIRGINIA.

**Chatham—Flour Mill.**—The company reported lately to be formed for establishment of a 100-barrel flour mill has been incorporated as the Southern Milling Co. J. H. Hargrove, Jr., can be addressed.

**Harrisonburg—Creamery.**—The Rockingham Creamery Co. has been organized and will establish a large creamery and cheese factory.

**Harrisonburg—Electric-light and Power Plant.**—The establishment of a \$20,000 electric-light and power plant is contemplated; the Shenandoah river will be harnessed at Grottoes and the electrical energy transmitted to Harrisonburg by underground cable. Address "The Mayor."

**Lynchburg—Street Paving.**—Dean & Payne have received contract for paving Madison street with vitrified brick.

**New Market—Creamery.**—A creamery and cheese factory will be established. Names of interested parties will be announced later.

**Norfolk—Amusement Company.**—The Southside Amusement Co. has been incorpo-

rated, with capital stock of \$50,000, by J. E. Duke, president; J. H. Livingston, vice-president, and George A. Frick, secretary and treasurer.

**Norfolk—Ice-cream Plant.**—The Crystal Ice Co. has been incorporated to conduct general ice-cream and dairy business, with capital stock of from \$2000 to \$5000. Wilkie T. Barnes is president; Dr. A. Weck, vice-president, and R. W. McDonald, secretary and treasurer.

**Portsmouth—The Duplicate Transfer & Rebate Co.** has been incorporated to acquire and manufacture patented and other articles, etc., by H. L. Maynard, president; Peter Wright, vice-president, and T. J. Wool, secretary and treasurer. Capital stock is to be not less than \$5000, nor more than \$50,000.

**Richmond—Snuff Factory.**—The Independent Snuff Co. of Petersburg, whose plant was recently reported burned, will, it is reported, rebuild at Richmond.

**Richmond—Mineral-land Development.**—The By-Product Coke Oven Construction Co. has been incorporated, with capital stock of from \$1000 to \$100,000, for the purchase and development of mineral lands of all kinds and for the manufacture of coke and other by-products of minerals. Charles E. Heller is president; Daniel W. Kincol, secretary, and Stephen Peabody, treasurer, all of New York except the president, who is of Boston, Mass.

**Richmond—Sheep-dip Factory.**—Laidlaw, Mackill & Co., operating a sheep-dip factory at 3400-3500 Williamsburg avenue, will, it is reported, double its capacity.

**Roopville—Flour Mill.**—J. K. Roop has awarded contract for erection of a new flour mill.

**Snowden—Bobbin and Shuttle Factory.**—The Amherst Pulp Manufacturing Co., L. A. Sadler, manager, is negotiating with a Philadelphia (Pa.) manufacturer of shuttles and bobbins relative to locating on its property in Amherst county.

**Snowden—Pulp Mill, etc.**—The Amherst Pulp Manufacturing Co., recently chartered by Richmond capitalists, with capital stock of \$100,000, has purchased the Amherst furnace property on James river, about nineteen miles above Lynchburg. Company has completed a dam 2500 feet long, which takes in the entire flow of James river, developing between 1500 and 2500 horse-power, and is erecting a wood-pulp mill of about twenty tons per day capacity. The property acquired contains brown hematite iron ore and building slate, which will be developed later on. Address L. A. Sadler, manager, Snowden, Va.\*

#### WEST VIRGINIA.

**Charleston—Heating and Plumbing.**—The West Virginia Heating & Plumbing Co. has been incorporated, with capital stock of \$50,000, by Clark Howell, J. R. Shanklin, Ernest Howell and others.

**Charleston—Rice Company.**—The North American Rice Co. has been incorporated, with authorized capital of \$1,350,000, for the cultivation of rice lands for the production of rice and other cereals. Charles F. Frothingham, William J. Griffiths, Edward Barr, John D. Elwell and others, all of New York, are the incorporators.

**Dimmock—Coal Mines.**—The Big Bend Coal Co. has been incorporated, with capital stock of \$50,000, by J. L. Beury, Ernest Echols and others.

**Greenville—Boom and Timber Company.**—The Creston Boom & Timber Co. has been incorporated for construction of booms. Capital stock is \$800, with privilege of increasing to \$3000. Address A. E. Kenney.

**Greenville—Flour Mill.**—T. A. McNeer has awarded contract for new machinery for flour mill.

**Moorefield—Tannery.**—W. J. Keller & Son of Petersburg, W. Va., will contract for the construction of a tannery at Moorefield.

**New Martinsville—Iron Foundry, etc.**—C. F. Rigby and E. A. McCabe of Pittsburg, Pa., have awarded contract to George Potts for erection of a building in New Martinsville which will be equipped for the manufacture of oil-well supplies and boilers and operated as the Rigby Manufacturing Co.

**Parkersburg—Brick Works.**—The Oakland Pressed Brick Co. has been incorporated for the manufacture of pressed brick by C. H. Forry of Hanover, Ohio; J. H. Lininger of Harrisville, W. Va.; R. H. Rutherford, C. W. Wentz, A. C. Davis of Parkersburg and others; authorized capital \$100,000.

**Welch—Lumber Company.**—The Panther Lumber Co., the Knox Lumber Co. and the Ritter Lumber Co. have consolidated, and will operate as the Ritter Lumber Co., with capital stock of \$1,500,000; will operate mainly in McDowell county.

**Wheeling—Steel Works.**—S. J. Robinson, managing director, and J. R. Wagner, New York representative, of W. Jessops & Sons of Sheffield, England, are investigating with a view of securing location for steel plant, which the firm proposes to establish in America. The Wheeling Board of Trade is endeavoring to secure the plant for that city.

**Wheeling—Medicine Factory.**—The Neuralgic Co. of Canton, Ohio, will reorganize and incorporate under West Virginia laws, with capital stock of \$50,000, and remove its plant to Wheeling. William Weiss of Sistersville will be manager.

#### BURNED.

**Amesville, La.**—Southside Planting Co.'s warehouse; loss \$200,000.

**Baltimore, Md.**—Hechinger & Co.'s chair factory damaged; estimated loss \$100,000.

**Baltimore, Md.**—Gilpin, Langdon & Co.'s drughouse; estimated loss \$100,000.

**Bowling Green, Ky.**—Bowling Green Milling Co.'s elevator; loss \$35,000.

**Chattanooga, Tenn.**—The Mountain City Stove Co.'s foundry; estimated loss \$50,000.

**Huntington, W. Va.**—The Carrollton Hotel; loss \$40,000.

**Lincecum, La.**—Central Lumber Co.'s saw mill.

**Orange, Texas.**—Alexander Gilmer's planing mill; estimated loss \$40,000.

**Piedmont, Ala.**—Cottonseed-oil mill owned by N. A. Alexander, J. J. Eubanks and Sam H. Cheney; loss about \$3000.

**Roxbury, Va.**—Miller & Miller's saw mill. St. Louis, Mo.—St. Louis Elevator & Storage Co.'s warehouse; loss \$650,000.

**Timpson, Texas.**—Trekell & Rounds Lumber Co.'s dry-kiln; estimated loss \$10,000.

**Wilmington, N. C.**—Two dry-kilns of Fore & Foster Company; loss \$2500.

#### BUILDING NOTES.

**Alvin, Texas—Business Block.**—T. C. Edwards is erecting a large business block.

**Atlanta, Ga.—Hospital.**—The Georgia College of Eclectic Medicine and Surgery will erect a \$15,000 hospital.

**Atlanta, Ga.—Bank Building.**—F. P. Heiser has received contract for remodeling the Central Bank block property after plans by Grant & Wilkins.

**Atlanta, Ga.—Hospital.**—The establishment of a hospital for infectious and contagious diseases is talked of. Address for information Dr. B. W. Bizzell.

**Baltimore, Md.—Building.**—L. & M. Lauer have awarded contract to William McDonald for erection of a four-story building to cost \$10,000; two elevators, steam-heating apparatus, etc., will be installed; J. E. Lafferty prepared plans.

**Baltimore, Md.—Warehouse.**—Gilpin, Langdon & Co. will rebuild their warehouse, reported burned at a loss of \$100,000.

**Baltimore, Md.—Hotel.**—A stock company, with capital of \$100,000, will be organized for the erection of a seven-story brick and iron hotel building at Charles street and Mount Royal avenue. Edward H. Glidden has drawn the preliminary plans and James L. Filon has option on the property.

**Baltimore, Md.—Building.**—Henry Smith & Son have received contract at \$33,000 for erection of the new suburban club building, previously reported.

**Baltimore, Md.—Warehouse.**—J. Henry Miller has received contract for erection of the proposed warehouse of the B. C. Bibb Store Co.; cost will be \$12,000.

**Baltimore, Md.—Gymnasium.**—The Baltimore Athletic Club will purchase site at \$15,000 on which will be erected its proposed gymnasium; building will be two stories, of brick and terra-cotta, 60x150 feet, and cost \$70,000. Address Dr. B. Merrill Hopkins, president.

**Birmingham, Ala.—Church.**—The Second Presbyterian Church, destroyed by the recent storm, will be rebuilt at a cost of \$10,000; W. W. Barclay, chairman building committee.

**Braidentown, Fla.—Building.**—A. B. Murphy has awarded contract for erection of a brick block 150x75 feet.

**Cedartown, Ga.—City Hall.**—It has been decided by popular vote to issue bonds for erection of city hall, lately reported. Address "The Mayor."

**Chattanooga, Tenn.—Warehouse.**—The Cahill Iron Works will erect a new three-story brick warehouse at a cost of \$3000.

**Chattanooga, Tenn.—Warehouse.**—The Keyser Manufacturing Co. has awarded contract for erection of its proposed warehouse.



Chattanooga, Tenn.—Fire Hall.—Joe Trimby has received contract at \$11,000 for erection of No. 1 fire hall previously reported.

Columbia, La.—Jail.—The Pauley Jail Building Co. of St. Louis, Mo., has received contract at \$8400 for erection of the proposed jail at Columbia.

Dadeville, Ala.—Courthouse.—Commissioners' court of Tallapoosa county wants estimates for the proposed addition to the courthouse at Dadeville. Address probate judge.

Decatur, Ala.—Depot.—The Louisville & Nashville Railroad Co. will, it is reported, build union depot at Decatur; George E. Evans, general manager, Louisville, Ky.

Elizabethton, Tenn.—Jail.—G. E. Boren, Dr. C. M. Emmert and J. J. Morrell, commissioners, will shortly award contract for erection of a \$7000 jail.

Fayetteville, N. C.—Depot.—The Atlantic Coast Line Railroad Co., J. R. Kenly, general manager, Wilmington, N. C., contemplates building a freight depot at Fayetteville, as lately reported, but has not definitely decided.

Griffin, Ga.—Dwelling.—Mrs. T. W. Latham will erect a dwelling.

Hazlehurst, Miss.—Courthouse and Jail.—The county will issue \$50,000 of bonds for erection of its jail and courthouse, lately reported. Address "County Clerk."

Henderson, Ky.—School Building.—A school building will be erected and equipped with modern improvements, including steam heat, etc. Address "Secretary School Board."

High Springs, Fla.—School.—The erection of a school building is talked of. Probably L. C. Gracy will give information.

Houston, Texas.—Library.—Designs will be received by trustees Houston Lyceum and Carnegie Library Association until May 15 for library building to cost not more than \$65,000. For prospectus address H. H. Dickson, chairman committee.

Jackson, Miss.—Courthouse.—The Hinds county board of supervisors will issue \$75,000 of bonds for erection of new courthouse.

Jacksonville, Fla.—Church.—T. V. Porter, chairman trustees Presbyterian Church, will open bids April 25 for erection of the proposed church building, in accordance with plans and specifications prepared by J. W. Golucke & Co. of Atlanta, Ga. Copy of plans and specifications may be examined at office of architects or at office of C. D. Rinehart in Jacksonville. Each bid must be accompanied by certified check for \$500. Usual rights reserved.

Jonesboro, Tenn.—Jail.—Washington county has authorized the erection of a jail building and sheriff's residence combined, to cost \$10,000. Parties desiring to bid on the work, taking the job complete, can, if they desire, present plans and specifications of their own. Address E. A. Shipley.

Jonesboro, Tenn.—Jail.—Washington county will expend \$10,000 in the erection of a new jail, and E. A. Shipley, J. H. Saunders and Henry Hoss have been appointed a committee to receive bids and award contract.

Lake Charles, La.—Warehouse.—The North American Land & Timber Co. will rebuild its burned warehouse.

Lake Providence, La.—Courthouse.—The Enoch's Havis Lumber Co. of Vicksburg, Miss., has been awarded contract at \$16,500 for erection of the proposed courthouse at Lake Providence.

Marlin, Texas.—Bank Building.—The First National Bank has awarded contract for extensive improvements to its building.

Maynardville, Tenn.—Courthouse.—Contract has been let to C. T. Stephenson of Knoxville, Tenn., at \$6000 for erection of the courthouse lately reported.

Mineral Wells, Texas.—Hotel.—S. A. Beckham of Greenville will erect a \$50,000 hotel.

Oakland, Md.—Church.—Plans have been accepted for the proposed Catholic church; building will be of stone, 50x90 feet, and cost \$15,000.

Mt. Savage, Md.—Church.—The Methodist Episcopal congregation will build new church, as recently reported; it will be 52x46 feet, with seating capacity for 300 and cost \$3500. Address Wilson Thomas.\*

New Orleans, La.—Hospital.—The board of administrators of the Charity Hospital has awarded contract to Darcantel & Diassellis at \$44,864 for erection of the building for trained nurses recently reported.

Newport News, Va.—Hospital Building.—Contract for the building to be erected by the Newport News General Hospital Association has been awarded to Moore & Co. at \$25,429.

Newton, Ala.—Store.—T. J. Killebrew will erect a store building.

Norfolk, Va.—Church.—The Ohef-Sholom congregation will erect a \$50,000 temple. Address D. Lowenburg, chairman building committee.\*

Parkersburg, W. Va.—Office Building.—N. S. Snyder will erect a six-story store and office building.

Raleigh, N. C.—College Building.—D. A. Tompkins of Charlotte, N. C., will obtain plans for and has contract to erect the textile building for A. and M. College; structure will cost \$20,000.

Richmond, Va.—Building.—The Iron Molders' Union will erect a building.

Richmond, Va.—Warehouse.—L. J. Cheatwood has received contract for erection of a large warehouse for Baldwin & Brown.

Rolling Fork, Miss.—Courthouse.—The plans of F. B. & M. S. Hull of Jackson, Miss., have been adopted for the \$25,000 courthouse at Rolling Fork previously noted.

Savannah, Ga.—Depot.—The Union Passenger Station Co. has awarded contract for construction of approaches to its proposed station to W. J. Oliver & Co. of Langley, S. C., at \$110,000.

Scotland Neck, N. C.—Tenements.—The Scotland Neck Cotton Mills will erect twenty dwellings for operatives.

Shreveport, La.—Dwellings.—The Hamilton Terrace Land Co., Limited, W. S. Penick, Jr., president, (previously reported) will soon have under construction five or six dwellings at a cost of about \$15,000.\*

Shreveport, La.—Station.—The Texas & Pacific Railroad Co. will erect a two-story pressed-brick passenger station at Shreveport; L. S. Thorne, general manager, Dallas, Texas.

St. Louis, Mo.—Church.—The West Park Baptist Mission, Rev. W. O. Lewis, pastor, will erect a church to cost \$5000. Plans were prepared by H. E. Roach & Son.

Washington, D. C.—Office Building.—It is reported that a syndicate represented by Wescott & Story will erect a 10-story office building to cost \$100,000.

Wheeling, W. Va.—Hotel.—E. B. Carney has purchased the Hotel Windsor and will improve same, as lately reported; improvements include an elevator, new plumbing, steam heat, electric lights, etc.

Winona, Miss.—Courthouse.—Montgomery county will erect a \$25,000 courthouse. Address "County Judge."

Winston-Salem, N. C.—Opera-house.—Efforts are being made for the erection of a \$24,000 opera-house, and correspondence is desired from builders and contractors. Address G. E. Webb.

## RAILROAD CONSTRUCTION.

### Railways.

Augusta, Ga.—Mr. James U. Jackson of Augusta is reported as interested in a plan to build an electric railroad between Augusta and Alken by way of Graniteville and Bath, S. C., a distance of fifteen miles.

Biloxi, Miss.—The Gulf Coast Electric Railway Co., which is interested in a proposed trolley line between Biloxi, Scranton and several other towns in the vicinity, is negotiating with New York parties to build it. James B. Cable at Long Beach, Miss., is president of the company.

Bonham, Texas.—It is reported that contracts have been made to construct the proposed railroad between Bonham and Denison by the company which has been organized with \$250,000 capital stock. E. D. Steger of Bonham is president, and R. D. Chaney, manager of the construction. The estimated distance is thirty miles.

Bristol, Tenn.—It is reported that surveys are being made for a railroad between Bristol and Independence, Va., which is to be built by the Mount Rogers & Eastern Railway Co.

Brunswick, Ga.—The last report of progress in constructing the Brunswick & Birmingham Railroad is to the effect that surveys have been completed a distance of forty miles, thirty miles have been graded and five miles of track laid on the Brunswick end of the route. E. C. Machen, 277 Broadway, New York, is president of the company, and L. W. Robert at Brunswick, chief engineer.

Buckeye, Tenn.—It is stated that the East Tennessee Coal & Iron Co. has let contracts for building about two and one-half miles of branches to connect its mines with the Knoxville & Ohio Railroad.

Cassville, W. Va.—James P. Gaffney, chief engineer of the Cassville & Monongahela

Railroad Co., writes the Manufacturers' Record that this road will be about five miles in length, extending from the Baltimore & Ohio to the mines of the New York & West Virginia Coal Co. James A. Milholland at Cumberland, Md., is president of the coal company, also the railroad company.

Charleston, W. Va.—E. W. Knight is president, and G. A. Dana, general manager, of the Campbell's Creek Railroad Co., which intends building from a point on the Kanawha river to coal deposits. The estimated length of the road is thirteen miles, and it is partly graded.

El Paso, Texas.—The El Paso Terminal Association has been organized, with the view of constructing a railroad in the suburbs, which will connect with several lines to be built to El Paso.

Florence, Ala.—It is reported that J. L. Bell of New York has become interested in a proposed railroad to be built from Florence to a point in Wayne county, Tennessee. The company has been organized to promote the enterprise called the Florence & Northwestern Railroad Co.

Fort Worth, Texas.—The Manufacturers' Record is officially informed that the Fort Worth & Rio Grande Railway will be extended from Brownwood to a point in San Saba or McCulloch counties, an estimated distance of fifty miles. H. C. Wicker at Fort Worth is superintendent of the company.

Franklinton, La.—The last report concerning the Louisiana Eastern Railroad is to the effect that contracts are to be let for the line which is being promoted between Franklinton and Covington, a distance of twenty-seven miles. W. W. Babington at Franklinton is president of the company.

Fredericksburg, Va.—Messrs. John R. Barbour and L. G. Johnson of Culpeper are interested in the proposed electric railroad between Fredericksburg and Culpeper, a distance of thirty miles. The Business Men's Association of Fredericksburg is agitating the scheme.

Gatesville, Texas.—It is reported that the proposed extension of the St. Louis Southwestern Railway Co. between Gatesville and Hamilton, an estimated distance of forty-five miles, is to be built during the present year and that work will begin in a few weeks. L. M. Lynch, engineer, may be addressed at Tyler, Texas.

Grand Saline, Texas.—The town authorities have given a franchise to the Texas Short Line Railroad Co. to build within the town limits. The company intends constructing a road between Grand Saline and a connection with the Missouri, Kansas & Texas system in Wood county. It will reach coal deposits which exist near the town of Alba, Texas. Henry M. Strong is president of the company.

Hagerstown, Md.—The improvements to be made by the Western Maryland Railroad Co. include the construction of about seven miles of extra track near Hagerstown and the relaying of fourteen miles of line with 80-pound rails. John M. Hood at Baltimore is president and general manager.

Harrodsburg, Ky.—New York parties are stated to be interested in a plan to build an electric railroad between Harrodsburg and Junction City by way of Burgin and Danville, Ky.

Jefferson, Texas.—Work has commenced upon the Jefferson & Linden Railroad, to be built an estimated distance of twenty-five miles. A. B. Clark at Dallas, Texas, is president of the railroad company.

Kansas City, Mo.—It is stated that contracts have been let for the completion of the route of the Kansas City, Mexico & Orient Railroad between Kansas City & San Angelo, Texas, and that the contracts will involve about 500 miles of construction. A. E. Stillwell of Kansas City is president of the company.

Kentwood, La.—It is reported that a contract has been let for building seven miles of what is known as the Kentwood & Eastern Railroad to George Y. Andrews of Dillon, Miss. E. B. Preston at Kentwood is one of the promoters of the railroad.

Knoxville, Tenn.—Work has begun upon the construction of the freight-yards of the Southern Railway at Knoxville. About twelve miles of track will be built. W. H. Wells at Washington is engineer.

Lake Providence, La.—A. T. Averill of Cedar Rapids, Iowa, president of the company promoting the railroad between Lake Providence and Vidalia, informs the Manufacturers' Record that sufficient capital has been obtained to build the road ready for tracklaying, and that it will probably be extended later into Arkansas.

Leitersburg, Md.—The business men of

Leitersburg are negotiating with the Hagerstown Electric Railway Co. to secure an extension of its trolley system to Leitersburg. The extension would be about seven miles in length. Christian W. Lynch at Hagerstown is president of the company.

Little Rock, Ark.—A correspondent of the Manufacturers' Record writes that the Little Rock & Eastern Railroad Co. has been incorporated, and has secured a franchise, also rights of way, to build a line in the suburbs along the river front. Wm. S. Mitchell is one of the promoters of the enterprise.

Macon, Ga.—Minton Wimberly of Macon is reported as interested in a railroad proposed between Macon and a point on the Seaboard Air Line. The road will probably join the Seaboard at Lawrenceville, Ga. A company is about to be organized to take up the matter.

McKinney, Texas.—The business men of McKinney, Denton, Decatur and Bridgeport, Texas, are conferring with the Missouri, Kansas & Texas Railroad Co. to secure an extension of the Sherman, Shreveport & Southern division to these towns. S. B. Fisher at St. Louis is president of the company.

Mobile, Ala.—It is announced that Messrs. C. D. Smith & Co. of Birmingham, Ala., have secured a contract to extend the Mobile, Jackson & Kansas City from its present terminus, Merrill, Miss., to Hattiesburg, an estimated distance of forty-five miles. F. B. Merrill at Mobile is general manager of the company.

Montezuma, Ga.—It is reported that the business men of Montezuma are considering the construction of a railroad to Cordele, a distance of thirty miles. R. B. Solomon, it is understood, is interested.

New Iberia, La.—F. N. Mestayer is reported to be interested in a railroad extending from Bayou Teche to Lake Fausse, a distance of about seven miles. It will be used principally for lumbering purposes, and construction work is under way.

New Roads, La.—The Grigsby Construction Co. of Kansas City, Mo., is reported to have secured a contract for building twenty-five miles of the extension of the Texas & Pacific system between New Roads and the Red river.

Poplar Bluff, Mo.—It is announced that a contract has been let for building the extension of the Southern Missouri & Arkansas Railroad between Poplar Bluff and Mingo, Mo., to K. H. Killebrew & Co. of Mt. Pleasant, Tenn. The estimated length of the extension is fifteen miles.

Roseboro, N. C.—It is stated that business men in Roseboro and Genoa are interested in building a railroad between the towns, which will connect the Wilmington & Weldon division of the Atlantic Coast Line with the Atlantic & Yadkin road. The promoters have secured a charter from the legislature.

Savage, Md.—Final surveys have been made for the proposed extension of the Baltimore & Ohio Railroad between Savage and Guilford. The extension will be about two miles in length. J. M. Graham at Baltimore is chief engineer.

Savannah, Ga.—Messrs. W. J. Oliver & Co. of Langley, S. C., have secured the contract to build the necessary track for approaches to the Savannah Union Station. It is stated that about twelve miles of track will be required.

Sherman, Texas.—Mr. B. F. Yoakum, president of the St. Louis & San Francisco Railroad Co., confirms the report that the company is considering an extension from Sherman to Fort Worth to connect with the Fort Worth & Rio Grande Railroad.

St. Paul, Va.—An election will be held in Hancock county, Tennessee, to decide on the question of subscribing to \$50,000 in stock of the Powell's Mountain Mineral Railway, which is being surveyed from St. Paul to a connection with the Knoxville, Cumberland Gap & Louisville Railroad. At St. Paul connection will be made with the Norfolk & Western system.

Tutwiler, Miss.—C. D. Smith & Co. of Birmingham, it is announced, have secured an additional contract to build thirty miles of second track on the Illinois Central system in Northern Mississippi. They recently secured a contract for twenty-five miles.

Unamis, Md.—W. D. Dodge of Buffalo, N. Y., writes the Manufacturers' Record that he will build about twelve miles of line between Unamis and Confluence, Pa. Grading is to commence at once. Some of the work will be sublet.

Union Springs, Ala.—It is stated that construction work on the Union Springs & Northern Railroad between Union Springs and Fort Davis, Ala., is to begin immedi-



ately, as contracts are to be let. W. M. Blount at Union Springs is president of the company.

Washington, D. C.—It is announced that Cleveland and Baltimore parties are interested in the formation of an electric railway system between Washington and Philadelphia, which will include a branch to Annapolis. It is proposed to complete the right of way partly constructed between Baltimore and Washington, and to extend it to Wilmington, Del., and Philadelphia. Among those reported as interested are W. H. Lamprecht, president of the Lamprecht Bros. Co. of Cleveland, Ohio; James Christy, Jr., also of Cleveland, and George R. Willis and D. M. Ludington of Baltimore.

Water Valley, Miss.—Surveys are now being made in the interest of the railroad between Water Valley and Friar's Point, Miss., an estimated distance of eighty-five miles. C. D. Farrar is engineer in charge.

Whitsett, W. Va.—The estimated length of the extension of the Cheat River Valley Railroad is seven miles, and it is to be built during the present year. The line is in operation a distance of eight miles between Whitsett and Steer's Siding. J. J. Stoer, Girard Building, Philadelphia, is president of the company.

#### Street Railways.

Athens, Ga.—The Athens Electric Railway Co., it is reported, has decided to build an extension to its proposed line, and has purchased the necessary rails and other equipment for it.

Baltimore, Md.—The United Railways & Electric Co. has requested franchises to extend to its trolley system in the northeastern and northern suburbs. William A. House is general manager of the company.

Canton, Miss.—Alexander Kraus of Chicago has secured a franchise to build a street railroad in Canton.

Ensley, Ala.—J. B. Stagg of Pratt City is interested in the construction of a proposed electric line in Ensley and vicinity, and has asked for a franchise from the town authorities. The road, if built, will be ten miles in length.

Petersburg, Va.—The South Side Railway & Development Co. has leased a spur of the Atlantic Coast Line about five miles long, and it is stated, will rebuild it for the use of trolley cars.

Westminster, Md.—Charles E. Fink and F. T. Shaw are interested in a proposed electric railroad to be built in the city and suburbs, and have secured franchises.

#### Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Agricultural Machinery.—R. A. Howell, via Warwick, Killarney, Queensland, wants to communicate with manufacturers of traction engines, wheat threshers and corn shellers.

Belling.—W. A. Carver, Roxboro, N. C., wants to buy sixty feet of 12-inch second-hand belting.

Blacksmithing.—See "Woodworking Machinery."

Boiler.—Lloyd Sugar & Molasses Co., J. D. Clark, vice-president, Loyd, La., will need a new 150-horse-power boiler.

Boiler and Engine.—See "Woodworking Machinery."

Boiler and Engine.—W. T. Pitts, Indianapolis, Miss., wants second-hand or new boiler and a Corliss engine suitable to run 1000-light electric plant.

Boiler and Engine.—Arlington Oil & Fertilizer Co., Arlington, Ga., wants a 14x16 slide-valve for a 14x42 Corliss engine and a 100-horse-power boiler (second-hand preferred).

Boiler and Engine.—See "Woodworking Machinery."

Boiler and Engines.—See "Chemical Works."

Boiler-shop Equipment.—John A. Ward, 111 South Gallennie street, New Orleans, La., wants the following second-hand tools for hand and power: Punch, about 30-inch

throat; rolls, about sixty-two inches between housings; splitting shear, table drill, press to take about 24-inch center, all to have capacity to work one-half-inch plate; wants prices f. o. b. cars New Orleans.

Bottle Manufacturers.—Agripino Valdes, care of Alamo City Business College, San Antonio, Texas, wants the addresses of manufacturers of small bottles or vials suitable for containing a patent medicine.

Bottles.—See "Bottling Plant."

Bottling Plant.—J. T. Harris, Spartanburg, S. C., is in the market for bottling plant for carbonizing water and for bottles.

Brick Machinery.—See "Machinery."

Bridge.—The board of supervisors of Clarksdale, Miss., will want bids until June 3 for construction of a steel bridge across Sunflower river.

Bridge.—Cherokee county commissioners, Gaffney, S. C., will receive plans and specifications until April 24 for construction of a bridge and approaches across Broad river; bridge to be three spans 150 feet each, of iron, with six-foot roadway; usual rights reserved; W. H. Ross, clerk of board.

Broom Machinery.—See "Woodworking Machinery."

Building Materials.—Hamilton Terrace Land Co., Limited, W. S. Penick, Jr., president, Shreveport, La., will be in the market for all kinds of building material.

Cable.—Cypress Lumber & Shingle Co., Little Rock, Ark., will need some wire cable for skidding logs.

Cans.—Alfred Morgan, Murphy, N. C., wants prices on two and three-pound cans and labels for tomatoes, string beans and peaches.

Charcoal Ovens.—Felix N. Mestayer, New Iberia, La., desires correspondence relative to the construction of charcoal ovens.

Chemical Works.—The Pfeiffer Chemical Co., 508-510-512 North Commercial street, St. Louis, Mo., will want boilers, steam engines, dynamos, motors, stills, steam kettles, percolators, vacuum pans, pomade washers, pumps, belts, pulleys, drug mills, pots, mixers and all machinery necessary for operating electrical chemical works.

Corn Mill.—See "Flour Mill."

Cotton Gin.—W. J. Rosomond, Hico, Texas, is in the market for complete outfit for a four-stand cotton gin.

Disintegrator.—Pineville Coal Co., Middlesborough, Ky., is in the market for a disintegrator, and wants full particulars, including cost, capacity, etc.

Electrical Equipment.—See "Chemical Works."

Electric-light Plant.—The city of Laurel, Md., will need electric-light and water-works machinery. Address Edward Phelps, mayor.

Electric-light Plant.—See "Ventilating Apparatus."

Electric Plant.—Fort Gaines Mill & Power Co., J. H. Fulford, Fort Gaines, Ga., is in the market for electrical machinery and supplies, including a 500-light plant and one or two new or second-hand water-wheels.

Elevator.—See "Ventilating Apparatus."

Engine.—Peter J. Callan, Box 10, Builders' Exchange, Galveston, Texas, wants a hoisting engine eight or ten horse-power, new or second-hand.

Engine.—W. A. Carver, Roxboro, N. C., is in market for second-hand 24 to 30-horse-power engine.

Fire Equipment.—The city of Murfreesboro, Tenn., wants 500 feet fire hose; J. W. Perry, chairman fire commission.

Fire Hose.—J. W. Perry, Chas. F. Perkins and Hickman Weakley, fire committee, will receive sealed proposals until April 22 for furnishing and delivering f. o. b. cars Murfreesboro, Tenn., 500 feet of Test, Maltese Cross or other like brands of rubber fire hose; hose to be two and one-half inches in diameter, four-ply, with five-ply capped ends. Usual rights reserved.

Flour Mill.—C. W. Finch, Henderson, N. C., wants prices on roller flour mill and equipment for grinding corn.

Furniture.—D. Lowenburg, chairman building committee, Norfolk, Va., will be in the market for pews for temple.

Heating Apparatus.—Wilson Thomas, Mt. Savage, Md., will want either steam heat or furnace for heating church.

Heating Apparatus.—See "Ventilating Apparatus."

Hoisting Engine.—See "Engine."

Ironworking Machinery.—See "Boiler-shop Equipment."

Labels.—See "Cans."

Lock.—Sealed bids will be opened May 10 at United States engineer office, custom-

house, Cincinnati, Ohio, for building lock for dam No. 13, Ohio river. Information furnished on application to Wm. H. Bixley, major engineers, or to William Martin, resident engineer Davis Island dam, Bellevue, near Pittsburg, Pa.

Machine Tools.—See "Woodworking Machinery."

Machinery.—A. D. Reynolds, Bristol, Tenn., wants prices, together with all necessary information, on machinery for making stone from sand.

Mattress Machinery.—S. W. Howland, Warrenville, S. C., wants information on machinery for making mattresses.

Needle Manufacturers.—Thos. H. Holmes, Goldsboro, N. C., wants addresses of manufacturers of needles.

Oil Manufacturers.—Karl Johannessen, Bergen, Norway, wants to correspond with manufacturers of cotton oil and syrup.

Paint Manufacturers.—Nicolas I. Mossawir, Beyrouth (Syria), Turkey (marking correspondence English mail via London), wants samples of white zinc paint and boiled linseed oil.

Paving.—Proposals will be received by the board of awards, care of Geo. N. Numsen, city register, Baltimore, Md., until April 17 for cement pavements at Hollins, Richmond, Lafayette and Hanover markets. Certified check for \$250 for each market must accompany each bid. Usual rights reserved.

Pipe-cutting and Threading Machinery.—W. H. Gibbs & Co., Columbia, S. C., are in market for machine (new or second-hand) for cutting and threading pipe twelve inches and under; also eight inches and under.

Plastering Materials.—Bradford L. Gilbert, architect-in-chief of South Carolina, Interstate & West Indian Exposition Co., Charleston, S. C., will open bids April 15 for 200 tons of casting plaster, 100 tons of lime for outside plastering, 5000 pounds of fiber for staff, 20,000 bushels of pon pon fresh water gravel, 1,000,000 four-foot sound lath, delivered in carloads, 100 kegs of 3d, fine lathing nails and three tons of modeling clay. Proposals must be accompanied by samples required and a certified check for \$25. Prices are wanted f. o. b. exposition grounds, Charleston. Usual rights are reserved.

Railway Equipment.—W. F. Little, St. Louis, Mo., is in market for 500 tons of 56 or 60-pound second-hand T rail.

Railway Equipment.—O. R. Whitney, 39 and 41 Cortlandt street, New York, N. Y., wants second-hand locomotive, 42-inch gauge, with tender; immediate delivery.

Rice Mill.—Gueydan Rice Mill, Gueydan, La., will want complete equipment for rice mill of 600 barrels capacity per twelve hours.

Saw-mill Machinery.—A. A. Lambe, Siler City, N. C., wants new or second-hand band resaw and scroll saw combined.

Sewerage.—J. H. Grove, mayor, Brownwood, Texas, wants bids on construction of city's proposed sewerage system. Bids will be opened April 16 and specifications are on file. Usual rights reserved.

Sewing Machines.—See "Woodworking Machinery."

Sewing Machines, etc.—Humphrey-Gibson Company, Goldsboro, N. C., wants information and prices regarding machines for making overalls, shirts, sunbonnets, etc.

Shafting and Pulleys.—See "Woodworking Machinery."

Stage Scenery.—U. O. Long, Room 11, Kyle Building, Beaumont, Texas, wants bids on staff and composition decorations, scenery, etc.

Steel-workers.—F. P. White, Shallooth, N. C., wants information concerning a special shaped steel rod, also regarding the process steel goes through from which bayonets are made.

Syrup Manufacturers.—See "Oil Manufacturers."

Telephone Equipment.—George N. Numsen, city register, Baltimore, Md., will receive sealed proposals until April 17 for furnishing the city with a complete branch office telephone equipment in the city hall, and for rendering telephone service through such branch equipment for three years for all telephones in municipal service. Certified check for \$500 must accompany each bid. Bond required and usual rights reserved.

Ventilating Apparatus.—U. O. Long, Room 11, Kyle Building, Beaumont, Texas, wants bids on ventilating, heating, electric light, elevator, etc.

Water-wheels.—See "Electric Plant."

Water-wheels.—See "Wood-pulp Machinery."

Water-works.—See "Electric-light Plant."

Well-drilling.—Chicago-Orange Oil Co.,

Orange, Texas, Chas. M. Rein, secretary, is open for propositions from well-borers.

Well-drilling Machinery.—E. C. Tyler, Valley Head, Ala., is in the market for new and second-hand machinery for oil wells.

Well-drilling Outfit.—J. A. Friedman & Co., Houston, Texas, want to purchase a well-drilling outfit for drilling to a depth of 2000 feet for oil.

Wood-pulp Machinery.—Amherst Pulp Manufacturing Co., L. A. Sadler, manager, Snowden, Va., is in the market for wood-pulp machinery and for turbine water-wheels, etc.

Woodworking Machinery.—R. M. Boykin, Boykin, S. C., wants to buy machinery for making spokes, handles, picker-sticks and brooms.

Woodworking Machinery.—Main Furniture Co., Hagerstown, Md., will need full equipment for manufacture of furniture, including 75-horse-power engine and 100-horse-power boiler.

Woodworking Machinery.—Peter J. Callan, Box 15, Builders' Exchange, Galveston, Texas, wants a boring machine to bore a one-inch hole through ten inches of yellow pine, steam or motor.

Woodworking Machinery.—Chas. S. Burgess, manager, Salisbury, N. C., will be in the market for power sewing machines, etc., also for turning-machine lathe, iron planer, drill press, pony wood planer, rip saw, wood-turning lathe, apparatus for blacksmithing, shafting, pulleys, hangers, etc., six-horse-power engine and eight-horse-power boiler, new or second-hand; also wants hand saw and matcher and molder combination, if it can be attached to pony planer.

#### TRADE NOTES.

Burt Exhaust Heads.—The Midvale Steel Co. of Philadelphia has installed eight Burt exhaust heads in the last four months, furnished by the Burt Manufacturing Co. of Akron, Ohio.

Flexible Tubing.—The Means and Fulton Iron Works of Birmingham, Ala., has ordered flexible metallic tubing for high steam-pressure service from the Walter L. Flower Co. of St. Louis.

Offices in New York.—The offices of the Eastern Granite Roofing Co. will be located in the Gerkin Building, New York, after May 1. The company is now completing elaborate machinery for manufacturing its perfected granite roofing.

Doing Excellent Work.—A recent letter received by the American Linseed Oil Co. Monadnock Building, Chicago, from a customer is to the effect that the presses and pump supplied by the American Company are doing excellent work.

Phosphate Mining.—Thomas F. Hanlon, 416 Fifth street N. W., Washington, D. C., may be addressed relative to a tract of land which he states is located on the Potomac river near Washington. It offers a good opportunity for development.

Opportunity to Manufacturers.—In another column an opportunity to secure an interest in a factory manufacturing spokes and handles located in Alabama is offered through an advertisement. The purchaser can secure a controlling interest, if desired.

To Full Capacity.—The mills of Messrs. C. S. Garrett & Son of Philadelphia are now running to their full capacity on orders for the various grades of paper for which this firm has such a reputation. They include wrapping papers, roofing material and rawhide waterproof paper.

Bethlehem Steel at Chicago.—Owing to increase of business at Chicago, the Bethlehem Steel Co. of South Bethlehem, Pa., will remove its offices in that city to more extensive quarters in Rooms 1520-1521 Marquette Building. E. Nelson, sales agent, will continue to represent the company.

Very Busy.—The Garvin Machine Co. Spring, corner Varick street, New York, is quite busy in its regular line of manufacture. The company has recently made a number of improvements on its milling and profiling machines, some of which, it is expected, to illustrate in the near future.

Orders from the South.—The McLanahan Stone Machine Co. of Hollidaysburg, Pa., has recently filled orders for ore-washer plants for the Sloss-Sheffield Steel & Iron Co. of Russellville, Ala.; washer logs for the United States Iron Co. of West Point, Tenn., as well as several other orders from the South.



**Special Hoisting Engines.**—The Carlin Machinery & Supply Co., Lacock and Sandusky streets, Allegheny, Pa., has recently filled an order for several special erector hoisting engines from the Colorado Coal & Iron Co. of Bessemer, Col. These engines are to be used in the construction of a new plant.

**To Copper Prospectors.**—In another column will be found an advertisement of copper lands which will be sold on May 6 at Asheville, N. C. T. H. Cobb and Charles A. Moore at Asheville are commissioners of sale. The sale is again ordered, as more bids have been received for the property.

**Steam-Power Plant.**—The Pepperton Cotton Mills, Jackson, Ga., offers for sale a complete steam-power plant, including 180-horse-power engine, capable of developing 225 horse-power, two 100-horse-power boilers, with heater, feed pump and all pipe connections, and 24-inch belt. Particulars on application.

**Praising an Exhaust Head.**—The F. M. Sibley Lumber Co. of Detroit writes the B. F. Sturtevant Co., Boston, saying: "The Sturtevant Exhaust Head we bought of you last winter is perfection itself. We are very much pleased with same. It keeps our mill roof as dry as if there were no exhaust at all."

**Steam-Producing Coal.**—A gentle reminder to remember the date to order Brushy Mountain Coal has been issued by the Crooked Fork Coal & Coke Co., miner of that fuel. The reminder takes the form of a convenient dating stamp for desk use. The company claims its coal is the best steam maker. Office is at Petros, Tenn.

**Ball Engines.**—The most recent installations of the Ball Engine included a 450-horse-power direct-connected to alternating generator running in parallel for Pennsylvania Railroad shops at Altoona, Pa.; two 90-horse-power direct-connected engines for brewing company at Newport, Ky., and 150-horse-power direct-connected engine for hospital at Denver, Col.

**Foundry Supplies.**—The S. Obermayer Co. (manufacturer of foundry facings and supplies) of Cincinnati, Chicago, and Larimer, Pa., has remodeled the latter plant, installed new machinery and doubled capacity. At Larimer the company makes a specialty of bituminous or coal facings, capacity being 100 tons daily. The Obermayer Company reports three plants running at full capacity.

**W. E. Speir's Contract.**—The District of Columbia commissioners have accepted the proposal of W. E. Speir, contractor and builder, to construct building for rear wing of workhouse, material to be of red brick, with brownstone trimmings, semi-elliptic lattice truss, book tile and slate roof, building to be complete, with the exception of heating and ventilating appliances, cell work and plumbing appliances for cell wing. Contract price was \$56,535.

**Lubricator That Lasts.**—This is the kind of compound manufactured by the Keystone Lubricating Co. of Philadelphia. The North Bangor Slate Co. of Bangor, Pa., in a letter to the company, writes that a barrel of its lubricating grease has been sufficient to keep seven engines running for the last two years and the main engine at the company's mill since 1897. The company states that it considers the grease the best and most economical which it has ever used.

**Pneumatic Door and Hatch Opener.**—The Long Arm System Co. of Cleveland, Ohio, will have its system for opening doors and hatches by pneumatic and electric power, together with its air compressors and fire pumps, on exhibition in the Bourse Exhibition Department about April 15. The whole will be in operation, thus showing by practical demonstration the value of the system; will also have the Standard Water-Light Safety Power Doors on exhibition in connection with the system of opening and closing.

**Plenty of Business.**—In a recent letter the Nonpareil Cork Manufacturing Co. of Bridgeport, Conn., writes that it has had so much business since January 1 that it really has not had time to talk about it. Recently contracts for cold-storage insulation came from Boston, Mass., Brooklyn, N. Y., Hartford, Conn., New York city and elsewhere. The company has also secured a number of large contracts for steam-pipe covering, brine-pipe covering and cork tiling. It has laid a floor of cork tiling at Johns Hopkins Hospital, Baltimore.

**Hyde Boiler Orders.**—Orders for the Hyde Water-Tube Safety Boiler continues to reach the manufacturers from the most important

industrial concerns in the country. Hyde Bros. & Co., engineers and contractors, of Pittsburg, Pa., are the patentees and manufacturers of the Hyde boiler. They have closed the fourth contract with the American Rolling Mill Co. of Chicago for 500 horse-power of boilers; a fourth contract with the Ohio Falls Iron Co. of New Albany, Ind., for 500 horse-power of boilers, and a third contract with the American McKenna Process Co. of New Jersey for 1200 horse-power of boilers.

**A Good Watchword.**—Prosperity seems to be the watchword for all of the United States just now. There is perhaps no place where this prosperous condition is more favorably shown than it is in the record of the engine business for 1900. Wm. E. Hill & Co., Kalamazoo, Mich., state that the output of their engine department for this year is more than double of that of last year, and that this seems to be merely the beginning of a still greater expansion for 1901. The 20-horse-power engine which they have recently placed on the market is having a remarkable sale and has proved more successful than they could have wished. Many improvements have been made on their engines during the past year.

**Mayberry Hardware.**—Mr. W. A. Chenoweth, formerly Southern sales agent for the Republic Iron & Steel Co. and Henry Disson & Sons, resigned his position with the above companies and has taken an interest in and been elected vice-president of the Mayberry Hardware Co. of Birmingham, Ala. This is one of the largest hardware companies in the South, having a capital of \$150,000, besides being located in the great industrial center of the South. The Mayberry Hardware Co. enjoys the reputation of owning and occupying the finest hardware building south of the Ohio river, and is located conveniently on the railroad, thereby saving cartage on freight. The company has enjoyed a liberal patronage and it doubtless has a great future before it.

**Thompson & Bros., Contractors.**—The extraordinary activity in factory, mill, warehouse and general building construction in the South in recent years has been a source of plentiful and profitable work for competent contractors. Among the most prominent of these firms is Messrs. T. C. Thompson & Bros. (Incorporated), Birmingham, Ala. They have completed some of the largest and difficult contracts, and while bidding on all kinds of buildings, have made a specialty of cotton-mill construction for about two years. Thompson & Bros. have just completed a \$300,000 contract for Olympia Mills, Columbia, S. C.; are completing a \$200,000 contract for Buffalo Mills, Union, S. C.; are completing a \$75,000 contract for Seneca (S. C.) Cotton Mills; also a \$75,000 contract for De Kalb Cotton Mills, Camden, S. C., and are about to commence a \$125,000 contract for Lancaster (S. C.) Cotton Mills. This firm of contractors and builders is not limited either in character and size of work or its location in the United States, and is prepared to submit bids at any time.

The Boston Commercial Bulletin says: "Clarke Merchant has consented to accept the presidency of the Schuylkill Traction Co. of Philadelphia when the board of directors meet to organize shortly. He recently made a thorough inspection of the property and its proposed branches, and was abundantly satisfied with its worth as an investment. Mr. Merchant is a Philadelphian, and is one of the wealthiest and most substantial business men of that city, having been connected with its commercial interests for the past thirty years. He is the president and the virtual owner of the business of Merchant & Co., Limited, and is also president and virtual owner of the International Sprinkler Co. He is also largely interested in the manufacture of tin, copper and brass, and is one of the largest manufacturers of tin in the United States, having immense works at Twenty-first street and Washington avenue, Philadelphia, and which was one of the first plants of this kind established in America. Mr. Merchant is about sixty years of age, and is a sturdy and very active man, who keeps in close touch with the interests with which he is identified. His going into the Schuylkill Traction Co. places that corporation on a firmer financial footing than it ever was before, and means much for that region. Mr. Merchant's life has been a very active one. He graduated from the United States Naval Academy at Annapolis in 1857, and immediately entered into active service in the navy and served with distinction during the Civil War, and rose to the rank of commander of one of the war vessels. He resigned his commission in 1867 and entered upon his present active business life, which has been an eminently successful one."

## TRADE LITERATURE.

**Gardner Governor Plant.**—The Gardner Governor Co. of Quincy, Ill., has issued an attractively-engraved card inviting its friends to the opening of the new factory buildings recently completed. An accompanying engraving shows the extensive governor works of the company.

**Electrical Apparatus.**—Bulletin No. 5, issued by the H. W. Johns Manufacturing Co. of 100 William street, New York, describes and illustrates the Noark Fuse, which is put on the market by this company. It gives the various sizes and styles of the fuses and the voltage for which they are made.

**Core Oil.**—This essential in foundry practice is referred to in a leaflet recently issued by Messrs. Clarkson & Ford, 224 Front street, New York. Judging by the testimonials received by the firm, the oil fills a long-felt want. It can be utilized for large and small work, and the leaflet contains full directions for mixing.

**To Rolling-Stock Users.**—Dallett's bulletin for March contains a description of locomotives, rails, bridges and other equipment of special interest to railroad companies which Messrs. Dallett & Co. of Philadelphia have for sale. The firm also has a number of summer trolley cars which it is offering at a special price.

**For Grain Grinding.**—A firm which has long been noted for its high-grade machinery for grinding grain is Messrs. Sprout, Waldron & Co., Muncy, Pa. An idea of the extent of the apparatus which they place on the market is given in their latest catalogue, which is not only profusely illustrated, but also contains descriptions of the burr and attrition feed and meal mills, grain and ore crushers, rock mills, shafting, belting, etc.

**A Cleaner That Cleans.**—The catalogue recently issued by the Ford Automatic Boiler Cleaner Co., Carleton Building, St. Louis, contains not only a description of the apparatus referred to, but a very large amount of general information; in fact, the book might be called a miniature encyclopedia, as it is literally full of statistics. A number of pages are devoted to testimonials from prominent manufacturers of the efficiency of the cleaner.

**To the Point.**—The latest catalogue issued by H. B. Underwood & Co., 1025 Hamilton street, Philadelphia, refers to the special tools for railway repair shops, for which this concern has such a reputation. Although the catalogue is very compact in size, it is directly to the point, and those interested in the apparatus described will obtain the information they require of the planing machinery, tanks, motors, compressors and other equipment referred to.

**Foaming in Boilers.**—The able and exhaustive essay relative to the cause of foaming in locomotive boilers printed some time ago in the Railroad Gazette and written by Mr. C. Herschel Koyl has been republished by the Industrial Water Co. of 15 Wall street, New York, in an attractive pamphlet, which the company will be pleased to mail to all interested. The pamphlet also includes a paper by the same author on "Pure Water for Locomotives by Evaporation."

**Coal and Coke.**—Although the pamphlet recently issued by the Davis Coal & Coke Co. might be termed a catalogue, it is really a very valuable work upon the production of these materials. It is very artistically prepared and the illustrations are notably excellent. In addition to containing a large number of testimonials from extensive coal consumers of the excellence of the Elk Garden Cumberland coal, for which the Davis Coal & Coke Co. is noted, very valuable data is given relative to coke as a fuel for steamships, the heating qualities of the Davis steam coal and the principal tidewater points where the product is loaded. A copy of the pamphlet may be obtained by addressing the company's main offices, Washington Building, New York.

*Managers of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises and needing machinery or supplies of any kind will find it profitable to consult the advertising columns of the Manufacturers' Record. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.*

## FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

### NEW BANKS IN THE SOUTH.

#### What the Record of Their Organization Shows.

The number of new banks which have been organized within a certain period give an idea of the expansion of business in the Southern States within that period. In the six months ended April 1 the Manufacturers' Record finds that the formation of State, national and savings banks has been very extensive throughout the South. Every State has been the scene of financing of the sort. Naturally some States have shown much larger increase in banking facilities than others, in Texas no less than thirty-four national banks and five State banks being opened for business since October 1. During the year ended March 14 sixty-five national-bank charters were approved in Texas, representing \$2,600,000 in capital stock. They are situated principally in small towns, and indicate an increase in business in such communities. Although the majority are capitalized at less than \$50,000, one bank with \$100,000 has been located at McKinney and another at Decatur with \$75,000 capital.

Texas has taken out far more national charters than any other Southern State, yet has organized comparatively few new State banks in proportion to its size. Virginia has organized twelve State banks within the last six months, the new institutions being located all the way from the tidewater section to the extreme southwest. In spite of the large number of banks which began business in Georgia during the year ended July 1, the additional capital of national banks for the year ending March 14 amounts to \$785,000, while in the last six months twelve State banks were added to its list, the majority being in the smaller towns.

The record for North Carolina is ten national and State banks for the same period, Maryland five, Tennessee five, Alabama four, Florida six, South Carolina nine, Louisiana thirteen, Mississippi four, Kentucky eight and Arkansas six. The average capital of these State and private banks has been from \$25,000 to \$30,000, while a few have been organized with \$50,000. Many of the new banks have been formed in cotton-mill towns, and officers of the mills have taken blocks of stock in the banks as well. In the Carolinas, for example, Clinton, Orangeburg, Spartanburg, Gaffney, Liberty, Hertford, Raleigh, Franklinton, Kinston, Lexington, Fayetteville and Weldon, all manufacturing centers, have additional banking facilities. The industrial communities of Cuthbert, Roswell, Augusta, Buford, Mount Vernon and Moultrie in Georgia are also in the same list. The development of Western and Southwestern Louisiana through the building of new railroad lines has considerably added to the banking facilities, as is instanced by organizations at Gueydan, Ruston, Monroe, Natchitoches, Lake Charles and Eunice.

An interesting feature of this expansion is the formation of trust companies in various Southern cities. Local financiers are beginning to realize the many advantages which accrue to corporations empowered to finance security issues, to deal in real estate and to act as trustee in general, in addition to doing a general banking business. Charters have been



secured in North Carolina within the last six months for a trust company at Raleigh, which will probably be capitalized at \$500,000 and do business throughout the South. A loan and trust company has recently been formed at San Antonio, Texas, while at Gaffney, S. C., arrangements are being made by the Southern States Trust Co. to begin business with \$250,000 capital stock. It may be said here that this corporation owes its creation entirely to the manufacturing interests, which have changed Gaffney into one of the most important communities in the South from a little village of a few hundred people. At Augusta, Ga., the Equitable Trust Co. has also been formed, while the Union Trust & Savings Co. is the title of a new organization at Montgomery, Ala., with \$100,000 capital stock.

The majority of the Southern States apparently have not taken advantage of the law allowing the formation of national banks with less than \$50,000 capital stock. With the exception of Texas, Louisiana and West Virginia, the record for the last six months shows that the number of State and private banking organizations is much larger than those taking out national charters. The Merchants and Planters' Bank of Texarkana, Ark., has the largest capital of any of the new State banks organized—\$100,000. Several banks operating under State charters have organized in the larger cities—for instance, the Calvert Bank in Baltimore, the Morgan State Bank in New Orleans and the Farmers and Traders' Bank at Atlanta.

#### Demand for Bonds.

The demand from foreign as well as American investors for bonds of Southwestern railroad companies is indicated by the purchase of \$30,000,000 worth of 4 per cent. refunding bonds of the St. Louis & San Francisco Railroad Co. by a syndicate formed by J. & W. Seligman & Co. of New York. It is stated that the syndicate includes a number of investment firms in Berlin and Frankfurt, Amsterdam and London, where a large proportion of the securities will be distributed.

#### New Corporations.

Arrangements are being made to open a bank at Alma, Ark., by local business men.

T. G. Bates is president of the Bank of Waldron, Ark., recently organized with \$25,000 capital stock.

John O. Carroll of Norfolk is interested in the Virginia Mutual Insurance Co., recently organized in that city.

L. J. Best is president; C. H. Sexton, vice-president, of the Bank of Dunn, recently organized at Dunn, N. C.

The Portsmouth Land & Security Co. has been chartered at Portsmouth, Va., with Solomon Goodman, president.

The Merchants and Mechanics' Savings Association has been chartered at Newport News, Va., by local business men.

J. A. Latimer and others have organized a building and investment company at Forney, Texas, capitalized at \$10,000.

Arrangements are being made to organize a bank at Many, La., with J. G. Brown, president, and J. D. Stille, vice-president.

George W. Hoffman has been elected president, and John C. Alexander, cashier, of the bank recently organized at Boonsboro, Md.

It is expected that the company which proposes opening a savings bank at Somerset, Ky., will have as an addition a trust-company feature.

The Germania Guaranty Co. has been formed at Covington, Ky., and capitalized at \$100,000. Among those interested

are T. S. Clark and H. M. Flournoy of Charleston, W. Va.

The City National Bank is the title of the bank recently organized at Granbury, Texas, and capitalized at \$25,000. T. H. Hiner has been elected president.

S. B. McGee is president; George Preston, vice-president, and A. W. Wilson, cashier, of the First National Bank, recently organized at Dodd City, Texas.

S. A. Townes is interested in the Western Carolina Fire Insurance Co., recently commissioned to do business, with its principal offices at Greenville, S. C. It is capitalized at \$25,000.

A dispatch from Sherman, Texas, announces that two additional national banks have been organized in that city recently, each with \$100,000 capital. The promoters are J. P. Withers and F. Z. Edwards.

#### New Securities.

The town of Phoenix, Ga., is considering a bond issue for various purposes. Address the town clerk.

The town of Ensley, Ala., will issue \$10,000 in bonds for improvements. The mayor may be addressed.

F. R. Fulton & Co. of Chicago have purchased the issue of \$4000 in 6 per cent. bonds of McComb City, Miss.

The Collins County National Bank of McKinney, Texas, has decided to increase its capital stock to \$200,000.

Duke M. Farson of Chicago has purchased the issue of \$5000 in 6 per cent. bonds of West Palm Beach, Fla., at par.

The Trowbridge & Niver Co. of Chicago has purchased the issue of \$40,000 in 4 per cent. bonds of Wythe county, Virginia, at 100.54.

Messrs. Seasegood & Mayer of Cincinnati have purchased the issue of \$34,000 in 5 per cent. bonds of Covington, Va., paying 102.80.

The First National Bank of Harrisonburg, Va., has purchased the issue of \$15,000 of improvement bonds of the town of Suffolk, Va., paying 103.

E. J. Hudnall of Pratt City, Ala., has purchased the issue of \$10,000 in bonds of Ensley, Ala., paying 105. The bonds bear 6 per cent. interest.

Marion county, Texas, has registered an issue of \$85,000 in bonds for refunding purposes. The county court may be addressed at Jefferson, Texas.

Messrs. Seasegood & Mayer of Cincinnati have purchased the issue of \$25,000 in 5 per cent. bonds of Montgomery county, Alabama, paying 110.788.

Bids will be received by the county commissioners at Hopkinsville, Ky., for an issue of \$75,000 in 5 per cent. bonds of Christian county until May 1.

Bids will be received until May 1 for the issue of \$35,000 in 5 per cent. bonds of the town of Roanoke, Ala. R. G. Rowland, city clerk, may be addressed.

The Columbus Power Co. of Columbus, Ga., has given a deed of trust to the Columbus Savings Bank as trustee to secure an issue of \$500,000 in 5 per cent. bonds.

The issue of \$8000 in 6 per cent. bonds of Halifax county, North Carolina, will be sold on May 6. J. P. Futrell, county treasurer, may be addressed at Halifax, N. C.

The State legislature has given authority to issue \$75,000 in road bonds to Claiborne county, Tennessee. The county court may be addressed at Tazewell, Tenn.

There is a possibility that the city of Nashville, Tenn., will issue \$400,000 in bonds for bridges if authority is given by the legislature. The mayor may be addressed.

The city council of Chattanooga, Tenn., favors issuing \$100,000 in bonds for refunding purposes if authority is given by

the legislature. The mayor may be addressed.

An election will be held at Denton, Texas, to decide upon the question of issuing \$12,500 worth of improvement bonds. The mayor will give further particulars.

The town of East Lake, Ala., will receive bids until May 1 for an issue of \$18,000 in 6 per cent. bonds for improvements. N. A. Barrett, mayor, may be addressed.

It is announced that Adams county, Mississippi, will issue \$80,000 in 4 per cent. refunding bonds. James S. Fleming of Natchez, Miss., is president of the board of supervisors.

C. Henckel may be addressed relative to an issue of \$150,000 in bonds offered for sale by Cullman county, Alabama, for road improvements. Mr. Henckel's address is Cullman, Ala.

Buchanan county, Missouri, will decide the question of issuing \$100,000 in bonds for improvements by vote in the near future. The board of county commissioners may be addressed at St. Joseph, Mo.

The town of Madisonville, Tenn., will probably place on the market \$20,000 worth of improvement bonds if a vote is cast favorably relative to the proposition. An election will be held in the near future.

Bids will be received until May 6 for the issue of \$15,000 improvement bonds of Wilson county, North Carolina. George D. Green, chairman of the county commissioners, may be addressed at the town of Wilson.

Bids for the issue of \$10,000 in 6 per cent. improvement bonds of Franklin county, North Carolina, will be received until April 15. A. J. P. Harris, chairman of the board of commissioners, may be addressed at Louisburg, N. C.

The city council of Hattiesburg, Miss., has decided in favor of an election to vote on issuing bonds for terminals for the Mobile, Jackson & Kansas City Railroad. The election will be held in the near future. The mayor may be addressed.

A. C. Holloway, clerk of the Harnett county commissioners, may be addressed relative to the issue of \$12,000 in 6 per cent. improvement bonds, for which proposals will be received until April 22. Mr. Holloway may be addressed at Lillington, N. C.

Bidders for the issue of \$626,000 in 4 per cent. bonds of Norfolk, Va., recently placed on the market included investment firms from Baltimore, New York and Norfolk. The bonds were divided among several purchasers, the average selling price being 102.96.

Authority has been given by the North Carolina legislature for the following bond issues: The towns of Albemarle, Concord, Forsyth, Granville, Guilford, Hickory, Lenoir, Kinston, Monroe, Mooresville, Mount Airy, Murfreesboro, New Hanover, Reidsville, Tarboro, Sanford, the cities of Salisbury, Raleigh, Goldsboro, and the counties of Halifax, Wake, McDowell, Mecklenburg, Orange, Richmond, Wilkes and Yancey.

#### Financial Notes.

The annual convention of the North Carolina Bankers' Association will meet at Asheville on June 20 and 21.

The Union Trust Co. of Baltimore has purchased what is known as the Atlantic Trust Building from Bernard M. Baker. The company will utilize a portion of the building for its offices.

A meeting of the stockholders of the International Trust Co. of Maryland will be held at the office of the company, Baltimore, on April 30, to consider and act upon a proposition to decrease the capital stock of said company from 30,000 shares

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of the par value of \$100 each to 20,000 shares of the par value of \$100 each, and also to reduce the paid-in surplus of said company from \$1,500,000 to \$1,000,000.

The new Stock Exchange building in New York is to be built of Georgia marble.

Used Everywhere.—The use of cement has rapidly expanded within the last few years, and it is now employed as a substitute for not only stone, but metal in many forms. The catalogue recently issued by the Chicago Portland Cement Co. gives an idea of the large quantity of compound which it manufactures for various purposes. The book is unusually well illustrated with engravings showing walks, foundations, roadways and other work in which the cement has formed the base. Copies of the catalogue may be obtained of the Garden City Sand Co., sole distributors for the cement, Security Building, Chicago.